# Oakland Harbor Turning Basins Widening

## Comments and Responses to Comments

**May 2024**

PORT OF OAKLAND

# APPENDIX A-10: COMMENTS AND RESPONSES TO COMMENTS

OAKLAND HARBOR TURNING BASIN
OAKLAND, CALIFORNIA

US Army Corps of Engineers ®

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The U.S. Army Corps of Engineers (USACE) and the Port of Oakland thank the public for their comments on the Re-released Draft Integrated Feasibility Report and Environmental Impact Statement / Environmental Impact Report (IFR) during the April – June 2023 comment period. This appendix provides responses to all comments received by mail or email during the public comment period.

The following tables are organized to display responses by USACE, and the Port of Oakland as follows:

- First Column – numbers corresponding to comments highlighted in the comment letters, as shown in Attachment 2 of this appendix
- Second Column – USACE and Port of Oakland responses
- Third Column – Location of where to find revisions/updates were made in response to each comment, as applicable.

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# Resident Comments

**From:** Eric Law
**To:** Oakland Harbor Turning Basins Study
**Subject:** [Non-DoD Source] comment on Oakland Harbor Turning Basins new documents
**Date:** Sunday, June 11, 2023 12:02:34 PM

Mr. Jolliffe
In reviewing the documents I only saw one option and that was to widen the existing turning basin. I am curious why you are not looking at the option to tow the longer ships back out of the channel? This could be done with zero cost to the taxpayers and zero environmental impact. The ships are already pushed and braked with tugs, these same tugs could maneuver the ships back up the channel to the bay where they would turn around.
This solution could even improve the air quality and reduce time and cost for shippers as the ships no longer have to proceed to the turning basin. Video of freighter going backwards https://m.youtube.com/watch?v=vxexQcJ-xBU
This project would generate substantial volumes of air pollution and CO2 from the construction equipment needed to move the dirt. There are better options that should be explored before widening the turning basin. In your feasibility study please evaluate this option against widening the current basin.
Thank you
Eric Law

R-1

**From:** Stas Margaronis
**To:** Oakland Harbor Turning Basins Study
**Cc:** Susan Ransom; Stas Margaronis
**Subject:** [Non-DoD Source] Port of Oakland Estuary Turning Basin Widening Is Urgent
**Date:** Thursday, May 25, 2023 10:02:10 AM

Dear Mr Jolliffe:

R-2

The Propeller Club of Northern California strongly supports the widening of the Oakland Estuary Turning Basin as it is critical to allowing larger container ships to sail and dock at the Oakland International Container Terminal operated by SSA.

OICT is the largest terminal at the Port of Oakland accounting for 66% of container throughput and as a result the widening of the Turning Basin is critical to the future growth of the Port of Oakland and the 5,000 direct impact workers who are employed at businesses related to Port of Oakland activity.

I strongly urge the U.S. Army Corps of Engineers to move as expeditiously as possible to finalize environmental documents and move forward with the authorization of this project so no time is lost making the Turning Basin widening a reality.

Respectfully Yours,

Stas Margaronis
President, Propeller Club of Northern California

**From:** Adams Family
**To:** Oakland Harbor Turning Basins Study
**Subject:** [Non-DoD Source] Oakland Harbor Turning Basins
**Date:** Monday, June 12, 2023 2:41:17 PM
**Attachments:** Berth 38 Turning Area.pdf

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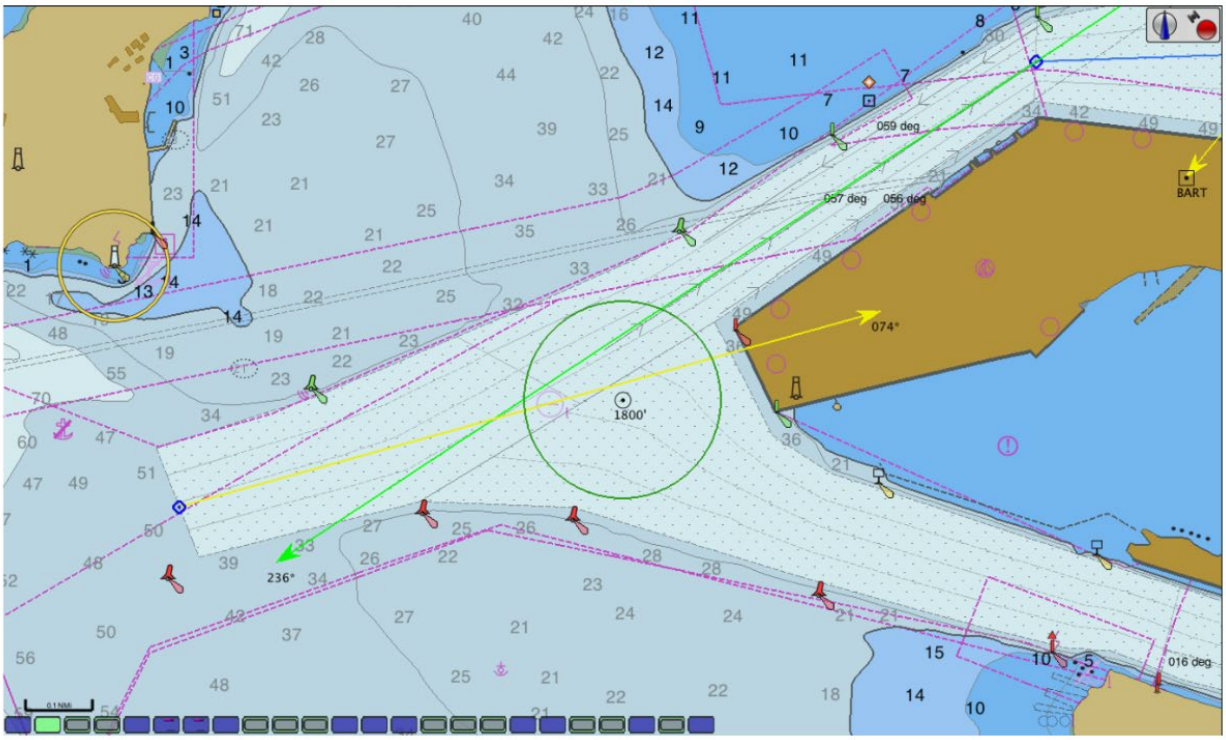
Mr. Eric Jolliffe, 450 Golden Gate Ave, 4th Floor, San Francisco, CA 94102 **R-3**

The Inner Harbor Turning Basin Widening is a wasteful use of public resources.
The area off Berth 38 already offers adequate space to turn large vessels, though limited by tidal current windows.
Postponing a ship movement by six or less hours to coincide with a slack water period does have costs, but not significant in comparison with the capital construction proposed.
improving Aids to Navigation in the area would mitigate many concerns with minimal costs.



Resident Comments Received During Public Meetings

| Comment Number | Commentor Name | Comment |
|---|---|---|
| R - 4 | Mike Jacob | thank you for recirculating this document, this is an important project because it helps facilitate safety and lets us turn vessels with fewer tugboats and less emissions per unit. This expansion will result in lowered costs per unit. |
| R - 5 | SW Lee | I am with CBFANC which is the premier customs broker and freight forwarder association for Northern California. We wholeheartedly support the larger turning basin, they do freight forwarding and customs. We are aware of the Oakland As leaving from Howard Terminal, we want Howard Terminal to be put back in the control to the Port of Oakland and used for maritime use. |
| R - 6 | Marie Logan | 1) public engagement- disappointed that the USACE's outreach to the community has not been adequate for this event, to my knowledge the USACE didn't consult with the West Oakland Community at all in the past year, between the release of the last environmental assessment and the present revised environmental assessment 2) this event was hosted on Eventbrite which requires creation of an account and [therefore] dissuades public participation and makes it harder for members of the public to communicate their concerns 3) we are concerned that the USACE has not been adhering to the Biden administrations Environmental Justice orders, such as order 14096 that requires consultation with fence line communities about projects that impact their communities 4) wanted to reiterate our request for a 60-day extension of the comment period so that the community can provide adequate review of the numerous documents that have been released already 5) the scope of the project seems functionally unchanged from last year, we raised concerns last year that the expansion of the basins will be felt throughout the landside community in the form of increased truck traffic, increased air pollution and the scope of the analysis in the report is drawn too narrowly to capture those impacts 6) this is an EJ issue, West Oakland is already impacted by Port activity, and residents deserve to be more closely considered in any plan that may exacerbate health harms related to air quality 7) this expansion project poses ecological risks, there are risks to Marine and Coastal ecosystems and local wildlife 8) we are requesting that the USACE pursue a full EIS so that it can more thoroughly identify and analyze all of these concerns. |
| R - 7 | William Dow | supports this project and doesn't want the shipping to move somewhere else |
| R – 8 | Ron Cancilla | I support the widening! 100% |
| R - 9 | Ms. Margaret Gordon | The overall project does not support emission reductions in West Oakland (WO). This project would add pollution to West Oakland by putting more trucks on the streets and 880 freeway. The Corps hasn't included [community] health, equity, or environmental justice [in the report]. [The Corps has not] engaged the WO [community] openly. The Port of Oakland doesn't [have enough] landside area to support mega ships [and] doesn't have dock rail and [this project] would add more pollution to WO. The Corps doesn't have a history [of incorporating] Environmental Justice in any project. The Turning Basin project would add more truck traffic to 880 corridor and more pollution to the communities along 880, add to the traffic congestion, place car traffic congestion on the streets of Oakland. The State of California is spending funds on emission reduction under AB 617 and the Corps is adding pollution with the mega ships. |

SSATerminals
A Matson and Carrix Collaboration

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**Public comments from 5/10 Turning Basin discussion:**

Susan Ransom, SSA Terminal R-10
Susan.Ransom@ssamarine.com
510-332-8654

First, I would like to say how much we (as an industry) appreciate the Army Core and the Port of Oakland for their commitment to the Turning Basin Project. This project is essential for the economic growth of the port and for better ship efficiency moving in and out of the harbors. For all the environmentalists on this call, widening the Turning Basin will not only help expedite the current ships faster, but will encourage the bigger (more fuel efficient ships) to come to Oakland. This will in turn lessen the amount of ship traffic with smaller ships being redeployed or taken out of commission. The trucks hauling goods are also compliant environmentally and soon moving towards a future of electric trucks . We continue to work with the Port closely to meet the needs of the environmental industry. This Turning Basin Project is a win for the environment and a win for the Port.

Second, for the Port, with regards to Maritime Reservation land under the A's current Term Agreement, which is set to expire on the 13th, we would respectfully ask that any further negotiations on alternate ideas (or further talks with the A's ) regarding Howard Terminal exclude the Maritime reservation land that is meant for the turning basin. At this time there is zero reason this reserved land should be part of any negotiations. If the 10 acres is not entirely needed at the end of the project then the Port at that time can decide what to do with the remaining land. We know your support of the Turning Basin is strong, and your support of this request is greatly appreciated.

**From:** [redacted] on behalf of Karen Beck
**To:** Oakland Harbor Turning Basins Study
**Subject:** [Non-DoD Source] Please consider the community impacts of widening the Turning Basins in the Oakland Harbor
**Date:** Monday, June 12, 2023 8:50:02 AM

Dear U.S. Army Corps of Engineers,

**R-11**

Without first electrifying the port, it is irresponsible to enlarge it. Pollution is already killing us. As a local resident, I am writing to express growing concern about the Army Corps' proposal to widen the Turning Basins in the Oakland Harbor. Inviting more megaships into Oakland will have a detrimental effect on our community by worsening air pollution and increasing truck traffic. Those impacts will reverberate through the community, negatively impacting the health and well-being of residents. In particular, this action will disproportionately affect low-income and marginalized communities in West Oakland that are already burdened by environmental injustice. Furthermore, the proposed expansion could harm endangered species and water quality in the San Francisco Bay. This could have long-lasting impacts on the ecosystem and the overall health of the Bay.

I urge you to consider the negative impacts of this proposed expansion and to prioritize the health and well-being of West Oakland residents when considering this proposal. It is deeply disappointing to learn that the Corps is currently refusing to prepare a complete Environmental Impact Statement despite thousands of comments from the public raising the serious public health and environmental consequences of the project. Therefore, I am writing to reiterate that the Corps must prepare a complete EIS that fully analyzes the impacts of this proposal on West Oakland residents and the greater Bay Area environment.

Sincerely,
Karen Beck
161 Remington Dr Danville, CA 94526-3920

R-12

**From:** J Riswold
**To:** Oakland Harbor Turning Basins Study
**Subject:** [Non-DoD Source] No
**Date:** Sunday, June 18, 2023 8:03:29 PM

No to expanding the turn basin to make room for more super-polluting megaships. Not only is this a terrible proposal—you have **failed to complete the full environmental impact assessment you are required to perform**.
The health of our planet is in peril. The health of our communities and our children's child hang in the balance. Be good ancestors and stop making things worse!
Janet Riswold

Sent from my iPad

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| **From:** | Jan Warren |
| **To:** | Oakland Harbor Turning Basins Study |
| **Subject:** | [Non-DoD Source] Comments on Draft Plan to expand Port of Oakland outer and inner turning basins |
| **Date:** | Friday, June 16, 2023 4:57:34 PM |
| **Attachments:** | Comments on Port of Oakland expansion of turning basins.docx |

Dear Mr. Eric Jolliffe,

Who does this benefit: Shipping titans and SSA Marine who handles 62% of the Ports container business. Real estate holders of land in the vicinity. **R-13**

Who does this harm: Residents of W. Oakland and residents in areas of Alameda and truckers who work at the Port.

Who pays: We all do

Climate Emergency: We can no longer assume we all need large increases in consumer goods. As a society we have to reduce our consumption as part of the transition to a clean economy.

First of all, there is no safe threshold for PM 2.5. West Oakland was the first AB617 area in the Bay Area because it has the worst air pollution and health impacts in the Bay Area.

While I acknowledge efforts have been made to invest in some electrification of the Port, the timeline pales in comparison to the full electrification of the Port of Long Beach.

I found the Seaport Air Quality 2020 and Beyond Plan: The Pathway to Zero Emissions. "The Port of Oakland is unique among major container ports because it is also a public utility. As such it has the authority to design and construct electrical infrastructure within its service area, rather than being dependent on major electric utilities to do. The Port is therefore able to optimally build out the electrical infrastructure within the Port area, and has a high level of control over the entire process. The Port's utility's is established and successful. It currently delivers electrical power with a carbon-free content 2 to 3 times greater than that of Pacific Gas & Electric Company, the major utility in Northern California, at a cost that is approximately 20% lower. The Port is therefore ideally positioned to implement the ***Powering the Future*** project. The Port of Oakland has the authority, financial and staff resources to fully execute the project and deliver tangible beneficial outcomes to its local community and Northern California."

I see the write-up and charts for the $19, 855,000 projects and timeline. It's less clear about the timeline and projects for the $56 million over the next 5 years. This was written in The Plan July 30, 2021.

"Substation SS-R-14 and Circuit 2, two elements of the project (see Section 3), the Port has committed funding for reconstruction of two major substations in its Capital Improvement Program, as well as more than $9 million for electrical charging infrastructure. Planned capital improvement projects related to the Port's transition to a zero-emissions seaport total $56

million over the next 5 years. What will be left to do at the end of 5 years."

Assuming the electrification of the Port occurs by the end of 2026-27, it would reduce the pollution when the anticipated Basin turning-basins expansions would begin. The best plan would be to electrify the Port first, not try to work on the turning-basin expansions, electrification, and the addition of 17 new terminals at the Oakland International Airport.

Figure 3 of the Port of Oakland Widening Basins Projects clearly shows the additional air impacts on 980 and 880, since they are haul routes to move remove 1,983,000 cubic yards of aquatic dredged and terrestrial material. The draft states that it is assumed some of this dredged material will be placed at the Keller Canyon landfill and the Kettleman Hills landfill. I live in Contra Costa County. I think you will find that 1. Most of the residents aren't aware how this project might affect them, and 2. There will be a strong pushback from residents.

The construction staging for the inner basin widening affects 7 City of Oakland local truck routes, and the City of Alameda 5 roadways. The construction staging for the outer harbor affects 3 roadways in the City of Oakland truck routes. The presentation anticipates 2.5 years of construction. It's not clear; however, it appears that both projects are meant to go forward at the same time.

Investment between $250 and $500 million to make roadways more "truck friendly" would have been better used to electrify trucks and install electric infrastructure.

The Source Modeling cites impacts from off-road equipment that will be in operation 12 hours a day, exhaust from on-road trucks 12 hours a day, dust from on-road trucks 12 hours a day, and marine equipment 24 hours a day. It is unacceptable for the impacted communities not to be able to open their windows, or take a walk in their neighborhood, or work in their yard and/or garden for 12 to 24 hours a day. This doesn't include the similar impact on peoples' lives from noise.

Children are not miniature adults. Their lungs, brains, and bodies will especially impacts by any increase in PM 2.5 emissions. Monitoring devices need to be installed around the construction site and the number of hours of construction during the day reduced if the PM 2.5 thresholds are above an agreed upon level. Likewise, if there are wildfires that affect the Bay Area like two years ago when it is unsafe to be outside, the construction sites should be shut down. The workers are also entitled to a healthy future.

Will MERV 13 filters be provided to those in impacted communities? It can't be stressed enough that W. Oakland residents already have high asthma and respiratory health issues, higher incidences of cancers, premature births, and higher cardiovascular issues that shorten their lifespan. This is already documented.

Projections are that vessel sizes will increase to meet the needs for operational efficiency. The draft shows that initially, if the turning-basins are enlarged they will accommodate the larger ships and will require fewer ship dockings to deliver the same amount of goods. That likely will change as Brian Beveridge expressed on the webinar on Wednesday.

I didn't have time to go over the entire draft. If the Draft can't protect additional cumulative negative health impacts on the surrounding communities, the expansion of the outer turning basis should occur first, and after completion the inner turning-basin could be expanded assuming all other areas have been addressed.

j

Thanks for the opportunity to submit comments

Jan Warren

**Jolliffe, Eric F CIV USARMY CESPN (USA)**

**From:** mschmalle@everyactioncustom.com on behalf of Marla Schmalle <mschmalle@everyactioncustom.com>
**Sent:** Thursday, June 15, 2023 8:46 AM
**To:** Oakland Harbor Turning Basins Study
**Subject:** [Non-DoD Source] Please consider the community impacts of widening the Turning Basins in the Oakland Harbor

Dear U.S. Army Corps of Engineers,

I am 84 years old and have lived with asthma since 2 years old caused by Cheveron Refinery emissions near home/small business where my family lived. We had to move so I could breathe. R-14

Please do not allow any port expansion until port electrification and regulation for land traffic to and from the port is complete.

Increasing causes of ill health prior to having mitigations in place is unconscionable. Think of the children ... the elderly ... and everyone else living in West Oakland, and for that matter the entire area including the Oakland Hills where I now live and must check air quality before I take my walk.

Sincerely,
Marla Schmalle

| General Comments and Responses | | |
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| **Response Number** | **General Theme** | **Response** |
| General Comment (GC)- 1 | Induced Growth & Cargo Throughput | The evaluation of the potential for induced growth is found in Section 5.7 of the Draft IFR/EA. This response is designed answer multiple comments regarding the potential for induced growth, increased capacity and impacts to Port operations from implementation of the Project.<br><br>The Project is designed to improve both the efficiency and safety of vessel movements, thereby creating the savings that are the main driver of national economic development (NED) benefits. However, this design does not include any elements that can a) remove any barriers to growth, b) shift cargo from one port to another, or c) increase the Port's container handling capabilities. Accordingly, waterway improvements like the one proposed here would not increase cargo throughput or induce growth.<br><br>For a container port, throughput is the amount of cargo that can pass through a port, measured in the amount of twenty-foot equivalent units (TEUs). A port's maximum practical throughput is called the terminal's container handling capacity, that is how many containers the terminal could handle given its size, configuration, and equipment. A terminal's capacity can be limited by 1) the number of vessels it can accept at a time (berth-constrained) or 2) by how much cargo its landside facilities (e.g., container yard, truck gate, pumps, pipelines, and storage tanks) can handle (yard-constrained).<br><br>These barriers to growth or handling capacity are not modified by the Project as it only increases the diameter of the two turning basins. It neither adds physical berthing space nor includes any landside facility elements, either of which would require its own project-specific environmental review. Without these two types of modifications, the Port's maximum capacity remains approximately 5.6 million TEUs.<br><br>The San Francisco Bay Conservation and Development Commission (BCDC) developed the May 22, 2020, 2019-2050 Bay Area Seaport Forecast (2020 Tioga Report), incorporated by reference in the Final IFR/EA, explains, analyzes, and forecasts container movements and capacity for Bay Area Ports, including the Port of Oakland. As explained in the 2020 Tioga Report, projected cargo volumes at the Port are determined by economic activity, specifically the volume of consumers served by the Port and the amount of goods that people buy and consume, both in the Bay Area itself and in the broader Central and Northern California market. It is the major economic factors such as recessions, trade conflicts, and global events like the novel Coronavirus, that impact trade and drives activity at Ports, rather than individual Port improvement projects like the Project. |

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| | | The 2020 Tioga Report details how the turning basins fail to impact growth by showing that ships could be limited to a 14,000 TEU capacity, the largest ship that can utilize the Inner Turning Basin, and the Port could still accommodate moderate or high growth. The limitation simply shifts the forecasted vessel calls from 29 to 40-43 ships a week. The Port could still manage to accommodate this level of future growth albeit with restrictions, delays, and suboptimal navigational and environmental impacts. This scenario also illuminates how the Project produces efficiency when compared to the future without project scenario. The Port's ability to continue to handle less than 30 larger vessels a week rather than attempt to accommodate 40-43 smaller ones, allows for improved planning of ship and cargo movements.<br><br>Yet, the Port will never be limited to an entirely 14,000 TEU capacity ship future, because ULCVs with approximately 19,000 TEUs are able to call at the Port, though not easily since they are unable to use the turning basins. Therefore, the Port's ability to accommodate potential growth is not limited by its turning basins and the Project cannot cause or allow growth. The Project and its benefits are independent of growth.<br><br>The vessels referenced throughout the IFR/EA and this appendix are classified as Sub-Panamax, Panamax, Post-Panamax Generation 1 (PPX Gen I), Post-Panamax Generation II (PPX Gen II), Post-Panamax Generation III (PPX Gen III), and Post-Panamax Generation IV (PPX Gen IV) depending on their capacity. The vessels are distinguished based on physical and operational characteristics, including length overall (LOA), design draft, beam, speed, and TEU capacity. These vessels are interchangeably referenced hereafter as a ULCV, or an Ultra Large Container Vessel. See Section 2.1.5 of the IFR/EA for more information. |
| GC-2 | Truck Management | The West Oakland Truck Management Plan is an action-based plan designed to reduce the effects of transport trucks on local streets in West Oakland. It was developed as a partnership between the City of Oakland, Port of Oakland, and the community members in which this plan applies and was approved by the City and Port in April 2019.<br>On April 19, 2022, the City of Oakland adopted updates to the truck parking regulations in West Oakland (one of the ten strategies outlined in the Truck Management Plan). The City of Oakland and the Port are continuing to work on the approach to update the truck route network, another key strategy of the Truck Management Plan that includes a continued community driven process.<br><br>Construction trucks will use the haul routes for the Project as discussed in the final IFR/EA under Navigation and Transportation, Sections 3.10 and 6.10. Additionally, the construction contractor would be required to prepare and implement a traffic control plan as part of the Recommended Plan construction. Construction trucks would be subject to and must comply with City of Oakland designated truck routes and parking regulations much like any other truck traveling within West Oakland. For a description of current truck operations at the Port, see Section 3.10.2. |

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| GC-3 | Level of NEPA Analysis | At this time, USACE has made an initial determination that, with implementation of the recommended avoidance and minimization measures, the impacts of the Project would be less than significant and thus an EA is appropriate in this situation. If new circumstances require USACE to pursue additional environmental analysis, the Agency will do so pursuant to NEPA. Further, USACE has reviewed the Port's Draft Environmental Impact Report (EIR), published October 2023, finding that the EA is fully consistent with the Port's analysis. |
| GC-4 | Community Engagement | Several commenters have encouraged meaningful community engagement, especially with regards to environmental justice and air quality.<br><br>As part of USACE's efforts to improve outreach and seek input from all communities about proposed projects, USACE has held a series of outreach engagements about the proposed project, inviting the local Oakland and Alameda communities to share information about widening the turning basins and obtain their input. USACE's goals for these engagements was to build trust, listen to community members concerns about the proposed project, and seek input for the Oakland Harbor Turning Basins' Study. A summary of those meetings is provided below:<br><br>• August 2021: Both USACE and the non-federal sponsor of the project, the Port of Oakland (Port) held a public kickoff meeting, which included moderated breakout rooms with small groups to invite community feedback on concerns, interest, and suggestions.<br>• January 2022: USACE held a second public meeting, seeking community input and comments on the December 2021 draft environmental assessment (Draft EA).<br>• March 2022: USACE and the Port joined the Prescott Neighborhood Council, to provide a presentation specifically tailored to their location, highlighting the purpose and need for the study.<br>• April 2022: USACE and the Port provided similarly tailored presentation to the Lowell-Acorn Neighborhood Council.<br>• May 2022: At the request of the West Oakland Environmental Indicators Project and Earth Justice, USACE and EPA met with them to discuss their concerns.<br>• June 2022: The Port held two California Environmental Quality Act (CEQA) Scoping meetings to receive public input regarding the environmental analyses to be undertaken prior to preparing the Draft Environmental Impact Report (DEIR).<br>• From December 2022 through June 2023, USACE hosted weekly public meetings with Environmental Justice coordinators at Bay Conservation and Development Commission, EPA, and the Port.<br>• February 2023: USACE hosted an in-person public meeting at the West Oakland Senior Center with a virtual option to receive input on changes made to the proposed project in |

response to public comments. Dinner, childcare, and translation services were provided to encourage and enable community participation.

- May 2023: USACE held another public meeting to receive input on the updated proposed project and revised Draft EA.
- June 2023: Due to requests from the public following the close of the NEPA comment period, USACE held an additional public meeting.
- September 2023: USACE and the Port met with West Oakland Environmental Indicators Project and Earth Justice, at their request, to discuss the study.
- October 2023: USACE participated in the Port hosted in-person public meeting in Oakland to receive public comments on the Port's Draft EIR. Specific members of the study team were in attendance and answered questions from the public.
- November 2023: USACE participated in the Port's second in-person public meeting on their Draft EIR, providing specific team members to answer questions from the public.

The feedback received during the initial meetings focused on USACE presenting the information about the proposed project in a less technical, more accessible manner. In response to this feedback, USACE sought to make the study's materials more accessible by creating more streamlined materials. The products created include graphics illustrating how the shipping vessels move in and out of the Port, an informational video about the proposed project, and FAQ's discussing the existing conditions and current turning basin inefficiencies, study process, how the public can provide input into the study, and expected impacts during and after construction. These materials were placed on USACE's study website, making them available to those who were otherwise unable to attend the public meetings.

Additionally, in these meetings, community members voiced concerns about air quality and the potential for increased truck traffic in their neighborhoods from the Port's operations. They also expressed concern that the widening of the turning basins would result in increased cargo coming through the Port, resulting in more truck traffic and truck pollution. In response to these concerns, USACE sought to reduce air emissions during construction of the proposed project from dredging and trucks, analyzed air emissions from reductions in vessel traffic and idling after construction, and took a hard look at the potential for the proposed project to increase truck traffic. Additionally, based on input on the re-released Draft Report, some modifications in modeling assumptions used for air emissions calculations and associated products such as the Port's Health Risk Assessment (HRA) were made.

During construction, USACE sought to reduce air emissions during construction of the proposed project from dredging and trucks. The Recommended Plan would benefit air quality because electric dredges

would reduce construction related emissions (relative to Alternative D-1) benefiting the Alameda and the West Oakland community members who are disproportionally impacted by air quality. The incremental cost for electric dredges will be paid by the non-federal sponsor, the Port of Oakland, without federal cost share. Further, the use of electric dredges results in less noise from construction for nearby sensitive receptors in Alameda and West Oakland as compared to Alternative D-1. Additional information about the benefits of using electric dredges during construction instead of diesel dredges for construction of the project can be found in the "Dredge Type: Diesel and Electrical" subsection of Section 4.6.2, "Environmental Quality (EQ)" subsection of Section 4.6.4 and the "Importance of Avoided Air Quality Emissions and their Associated Health Impacts" subsection of Section 5.4.1.

During construction, there will also be a temporary increase in traffic on local roads in and around the Port during the 2.5-year construction period for the Inner Harbor Turning Basin expansion alternative. As further discussed in Section 6.10, the increase is expected to be minor relative to existing daily traffic. Traffic increases would represent approximately 1 percent to 18 percent of the existing average daily traffic on all roadway segments along the proposed access routes. Construction traffic would not exceed existing capacity on any roadways. The project would implement a construction traffic control plan to minimize the effects of project-related construction traffic on traffic, transit, bicycle, and pedestrian circulation, as well as emergency access. By doing so, there would be less than significant traffic impacts throughout the study area, including to the environmental justice communities.

USACE analyzed air emissions from reductions in vessel traffic and idling after construction. The West Oakland communities are closer to the Inner Harbor, where the Port has 11 container berths. Expected benefits from widening the turning basins and addressing the shipping inefficiencies include reductions in marine air pollution sources that would be caused by ships idling and waiting resulting in longer transit times in absence of the proposed project. Idling hours from tugs and containerships are expected to be 225 hours less over the lifetime of the Project relative to the future without project condition. Assuming a container ship produces 1.1 tons of Diesel $PM_{10}$ per day, a reduction of 225 hours of idling could correspond to a reduction of approximately 10.3 tons of Diesel $PM_{10}$ relative to the no action alternative over the life of the project. Calculated for Diesel $PM_{2.5}$, the reduction would be similar at 9.476 tons. Additionally, a reduction in air pollutant emissions from vessel operations can be expected due to changes in vessel fleet and resulting decrease in ship calls. This reduction in DPM would be expected to have associated health benefits in the vicinity of the Port and surrounding communities.

USACE took a hard look at the potential for the proposed project to increase truck traffic based on increased throughput after construction. The volume of cargo through the Port is forecasted to increase, regardless

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| | | of the turning basin widening project. However, the turning basin widening project is not the cause of this forecasted increase and does not change the volume of cargo moving through the Port. While the federal project will not impact truck traffic after construction, USACE's understanding is that the Port of Oakland has and continues to undertake efforts to reduce air pollution from its operations and improve air quality in the surrounding communities. The Port set a goal to reduce DPM emissions by 85% from the 2005 levels by 2020. In reducing those emissions by 86% despite an 8% higher cargo throughput, the Port met their target and continues to make strides in reducing emissions further. Specifically, the Port saw reductions of 87% for ocean-going vessels, 60% from harbor craft, 88% from cargo handling equipment, 99% reduction from trucks, and a 94% reduction from locomotives. These reductions are the function of regulatory changes, fleet turnover, infrastructure upgrades, and other programs implemented by the Port (Port 2021). |

## Responses to Comments

| Residents of Oakland | | |
|---|---|---|
| **Comment Number** | **Response** | **Location in IFR** |
| R-1 | The situation commenter is describing is analyzed in the study as the "No Action Alternative" (Alternative A), a future condition without the project. This alternative assumes that the existing basins, which were designed based on a vessel approximately 1,139 feet in length and are not sufficient to accommodate ships that routinely call at the port, are not widened. In the No Action Alternative, ships exceeding the basin design width would be able to call at the Oakland International Container Terminal (OICT) in the Inner Harbor by backing out, but only with certain safety controls and operational restrictions. In the Outer Harbor, backing out into the entrance is unsafe due to high crosscurrents, according to the San Francisco Bar pilots. Backing out of the Inner Harbor is restricted to times of "slack water", which occur twice a day when the tide is neither going in or out, significantly limiting when ships can navigate the Inner Harbor. Additionally, due to the size of the larger vessels, no other traffic can enter or leave any of the terminals until the maneuver is complete, which would take about three hours. This creates a backup of vessels at anchor, or pier side, waiting to enter or leave until the channel is clear. This backup of vessels increases idling, which increases emissions. While this alternative would not include construction impacts, it was still determined that the No Action Alternative would result in the largest impacts to air quality and is the least cost-effective alternative. Therefore, Commenter is incorrect that this would result in "zero cost to the taxpayers and zero environmental impact." | Section 1.2: Study Purpose & Scope and NEPA Purpose & Need for Action |
| R-2 | Thank you for your comment. | NA |
| R-3 | Please see R-1 and Appendix C: Economics, Section 7.1 (Net Benefits and Benefit-Cost) of the Final IFR/EA which demonstrates the positive net benefits of widening the turning basins (e.g., economic and safety) which outweighs the public investment proposed. The commenter's proposed turning space, which appears to be the entrance channel, will not provide, safe, efficient, or adequate turning for the quantity of large vessels expected for the future global fleet. This is because the entrance channel is subject to tides which make turning large vessels unpredictable. See Section 2.1.6 which details the restrictions placed on larger vessels that requires transit only during slack-water, or rather when there are no tides. Tides can easily shift a vessel unpredictably, thereby pushing it out of the designated turning basin. Therefore, the | Appendix C: Economics, 2.16: Pilot Restrictions on Large Container Vessels |

| | | |
|---|---|---|
| | placement of the alternative turning basins did not include the entrance channel, and only included locations that provide protection from the tides. Vessels that exceed 1,139 feet in length are restricted when (time) and how (additional resources – pilots, tug horsepower) they enter and exit the Oakland Harbor. For vessels that exceed 1,210 feet in length, additional restrictions include limiting these length vessels to backing out of the Inner Harbor and turning within the entrance channel (near Berth 38) during daytime hours and only when environmental conditions permit (e.g., slack water). While a vessel is backing out of the Inner Harbor, no other vessel traffic can enter or exit the Oakland Harbor until the maneuver is complete and the vessel has exited the Oakland Harbor. This back out maneuver can lead to cascading delays (e.g., additional idle time at anchor or berth) to other vessels which are waiting to enter or leave the Oakland Harbor. Thus, delays include those for the vessels that are restricted due to their length (1,139" +) in addition to the vessels secondarily impacted. Without widening the turning basins, the combination of ongoing restrictions and vessel delays may prevent the Oakland Harbor from maximizing their economic return. | |
| R-4 | Thank you for your comment. | NA |
| R-5 | Thank you for your comment. | NA |
| R-6 | In response to the concern regarding access to the 5/10/2023 virtual meeting, USACE and the Port held a second meeting public meeting on 6/14/2023. USACE and the Port removed the process to register through Eventbrite to allow greater access to the meeting.<br><br>Section 6.1 of the IFR/EA describes the USACE Environmental Justice efforts to consult with the community and local stakeholders. In conducting the environmental justice analysis, the project team held a series of meetings, inviting the local West Oakland communities to discuss the Project and obtain their input. USACE and the Port held community stakeholder engagement meetings in August 2021, and January 2022. In addition, the team presented to the Prescott and Acorn neighborhood councils and held Q&A in March and April 2022. The EPA hosted a teleconference with the West Oakland Environmental Indicators Project Group and USACE in May 2022. A hybrid in-person and virtual meeting focused on the environmental justice community was held in West Oakland in February 2023; additionally, the previously mentioned virtual meetings focused on the EJ community were held in May and June 2023.<br><br>Pursuant to NEPA, USACE determined that, with implementation of the recommended avoidance and | 6.1: Environmental Justice |

| | | |
|---|---|---|
| | minimization measures, the impacts of the Project would be less than significant, and thus an EA is appropriate.<br><br>For information regarding induced growth see GC-1. The IFR/EA and the Draft EIR both conclude that the Project will provide net air quality benefits overtime. | |
| R-7 | Thank you for your comment. | NA |
| R-8 | Thank you for your comment. | NA |
| R-9 | See GC-1 for information on induced growth and how the Project will not result in additional truck traffic.<br>The Project aims to reduce navigation inefficiencies, per the USACE mission (33 U.S.C. § 540) by removing navigation restrictions. The Project would not change increase the Port's container capacity. The Project would reduce air emissions from inefficient vessel operations, such as vessel delays and idling, as compared to a future with no project. A detailed Health Risk Assessment (HRA) was prepared and included in Appendix A04b. The HRA informs the Environmental Justice sections in 3.1 and 6.1. | Appendix A04b: HRA, 3.1 & 6.1: Environmental Justice |
| R-10 | Thank you for your comment. | NA |
| R-11 | See GC-1 for an explanation for why the Project will not impact growth. The Project will not enlarge, or allow the Port to accept more cargo, nor impact truck traffic, beyond the construction timeframe. Larger ships are more efficient and will enter the fleet mix whether regardless of the implementation of this Project. The IFR/EA has found no significant impacts to endangered species or water quality. This Project will facilitate the plugging in at the Port of more vessels as they are able to turn and position themselves for that purpose. For these reasons and others, the IFR/EA shows that the Project would lower air quality impacts over time. The Draft EIR released in October of 2023 by the Port states that the expansion of the turning basins is expected to temporarily increase truck trips for hauling demolition debris and excavated and dredged materials, per Section 2.5.4. The Draft EIR includes a traffic control plan (TCP) in response to the temporary increase in truck trips. See Section 3.13.4 of the Draft EIR. Minimization measures are also put in place to minimize the amount and length of truck trips, including the use of energy-efficient equipment where applicable. See Section 3.6.4 of the Draft EIR. Additionally, air quality impacts to environmental justice communities would be less than significant under the Project. See Chapter 6.1, Environmental Justice for more information. The expansion of the turning basins on endangered species would be less than significant per Chapter 6.6, Special Status Species and Protected Habitat. Minimization measures, found in Appendix A07, will be implemented to protect water quality and wildlife | 6.1: Environmental Justice, 6.4: Water Quality, 6.6: Special Status Species and Protected Habitat, Appendix A07: Avoidance and Minimization Measures, Section 5.7: Evaluation of Potential for Induced Growth |

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| | to reduce potential construction related impacts. The Project would not exceed any threshold of significance related to water quality, thus the impact to water quality would be less than significant. See Chapter 6.4, Water Quality, for more information. See GC-3 for the decision to conduct an IFR/EA. | |
| R-12 | See GC-3 for the decision to conduct an IFR/EA. ULCV are newer and more efficient, producing less air pollution than the older ships they are replacing. Further, the wetland creation from the Project will provide environmental benefits to the Bay in the form of sea level rise protection and carb sequestration. | 6.14.11: GHG Emissions Summary and Effects |
| R-13 | Section 5.3 of the IFR/EA documents the economic benefits to the nation, expected from the Project. See Section 6.14.8 for a discussion on wetland carbon sequestration that is expected from the wetland creation from the dredged material from the Project. Wetland creation will have multiple benefits including sea level rise resiliency for the Bay area. USACE supports greater electrification and applauds the Port's commitment to this effort in this Project by agreeing to pay the increased cost of electric dredging. However, electrification of the Port itself is outside the scope of this navigation project. USACE has no authority to address those efforts described by commenter and cannot speak to the Port's prioritization of projects. Commenter is mistaken in that the vast majority of dredged material will be removed by barge over water, and not by trucks. Only a small percentage of material is expected to warrant placement at landfills. For air quality analysis please see Section 6.13 of the Final IFR/EA. USACE does not follow commenter's references to money spent on roadway improvements, but the scope of the Project does not include any roadway improvements. USACE is in discussions with the Port to place air monitors around construction sites. The Project assumes a construction start date of June 2027 with an overall duration of approximately 2.5 years, ending October 2029. Construction-related in-water work activities associated with the Outer Harbor Turning Basin expansion would be conducted at the same time as a portion of the in-water work for the Inner Harbor Turning Basin expansion for 6 months during the 2028 in-water work window (June 1 through November 30) and 2 months of the 2029 in-water work window. The IFR/EA analyzed both air quality impacts and noise from the proposed construction and found that those impacts did not rise to the level of significant. The IFR/EA does not contend that children are miniature adults and no MERV 13 filters have been requested. Such filters are also outside the scope of the Project. USACE has not been provided Mr. Beveridge's webinar and cannot address comments related to information provided from it. The Project would reduce air emissions from inefficient vessel operations, such as transit delays and idling, as compared to a future with no project. A | 5.3: Economic Benefits, 6.13: Air Quality, 6.14.8: Total Greenhouse Gas Emissions, 3.1 & 6.1: Environmental Justice, Appendix A04b: HRA |

| | | |
|---|---|---|
| | detailed Health Risk Assessment (HRA) was prepared and included in appendix A04b. The HRA informs the Environmental Justice sections in 3.1 and 6. 1. Electrification of the port is outside the scope of this Project. | |
| R-14 | This turning basin widening Project aims to reduce navigation inefficiencies, per the USACE mission (33 U.S.C.§ 540) by removing navigation restrictions. See GC-1 and R-11. A detailed Health Risk Assessment (HRA) was prepared and included in Appendix A04b. The HRA informs the Environmental Justice sections in 3.1 and 6.1. | Section 1.2: Study Purpose & Scope and NEPA Purpose & Need for Action |

# Pacific Merchant Shipping Association Comments

PMSA
PACIFIC MERCHANT SHIPPING ASSOCIATION

June 16, 2023

US Army Corps of Engineers, San Francisco District
Attn: Mr. Eric Joliffe
450 Golden Gate Ave., 4th Floor
San Francisco, CA 94102
*Delivered via email to*: OaklandHarborTurningBasinsStudy@usace.army.mil

Re: Oakland Harbor Turning Basins Widening Navigation Study - REVISED Draft Integrated Feasibility Report and Environmental Assessment, Draft Finding of No Significant Impact

On behalf of the members of the Pacific Merchant Shipping Association (PMSA), including the majority of ocean carriers calling on and all of the marine terminals operating at the Port of Oakland, we respectfully submit these comments regarding the Revised Draft Integrated Feasibility Report and Environmental Assessment ("Revised FR/EA") for Oakland Harbor Turning Basin Widening Navigation Study. PMSA further implores the US Army Corps of Engineers (USACOE) and the Port to move forward with this widening project as expeditiously as possible. The Turning Basin widening project will increase safety, promote economic growth and efficiency, and will improve the environment by reducing the rate of growth of vessel emissions and reducing actual total vessel emissions through improved efficiency. In addition, by avoiding further cargo diversion from US West Coast ports, the Oakland project will help avoid increases in greenhouse gases. PMSA-2 PMSA-1

PMSA believes that the Revised FR/EA is adequate and should be adopted. Chiefly, the revisions reflect minor changes in the project parameters which are adequately addressed. These revisions do not present any fundamental, significant, or material changes to the analyses generally that were applicable to the project and adequately and correctly addressed in the underlying initial FR/EA. PMSA-3

PMSA also agrees with the USACOE responses to questions and assertions to the Initial FR/EA at Appendix A10. Specifically, PMSA agrees with the responses included in Response "GC-1" of the Revised FR/EA at Appendix A10 (Response #1) regarding Induced Growth. This project will not induce growth at the Port of Oakland. The turning basin expansion will per se not induce cargo growth: for example, there is no Central Valley farmer who will make a decision to be a cargo exporter because there is a vessel operating in a wider turning basin but who would choose not to be a cargo exporter because there is a vessel operating in a narrower turning basin. Those marketplace decisions will be made based on ocean carrier, motor carrier, and marine terminal price, route, and service conditions – not on whether or not there is an expanded turning basin.

PMSA also agrees with Appendix A10 Reponses #74 - #76. The environmental benefits of lowering emissions per ton and emissions per container which are endemic to the usage of larger and more efficient vessels are undeniable, and the alternative will lead to increased levels of not only greenhouse gas emissions globally but also per unit criteria pollutants, including NOx and Diesel PM, locally. Ocean-going vessels are the most environmentally-friendly means of moving cargo as they have the smallest emissions footprint of any transportation mode on a per unit basis. Because California ports are primary cargo gateways for Asian cargo, the transportation of cargo by ship from the US West Coast to and from Asia is the most optimal way to conduct trade per ton of cargo relative to greenhouse gas emissions. PMSA-4

As the USACOE is well aware, this project is necessary to improve the safety and efficiency of the current Port of Oakland's navigational infrastructure. The existing channel and turning basins were designed for pre-panamax container vessels which were state of the art 25 years ago – and which carried 1/3 the capacity of today's ultra-large container vessels. These current limitations on the Port of Oakland stem directly from the size and dimensions of the current turning basins, not from the balance of the channels which are continue to be maintained at the depths authorized by the -50 Foot Project. While many of today's larger ships have been able to be accommodated, these vessels are not operating at maximum efficiency and have little to no margin for error upon their approach or departure within the turning basin, and it presents limitations on the size of other vessels that are being introduced into the trade. The Port will not be in a competitive position to attract these vessels, thus putting itself at a competitive disadvantage and environmental disadvantage, if it does not expand its turning basins. PMSA-5

These safety and efficiency needs remain identical under the Revised FR/EA as in the original FR/EA and remain equally effectively addressed in the Revised FR/EA as in the original FR/EA. PMSA continues to agrees with, and supports, the identification of both Alternative D-1 and Alternative D-2 as feasible scenarios that maximize benefits and advance the purposes of the proposed project. PMSA-6

And PMSA continues to agree that selection of Alternative D-2 is the superior plan for this project and endorses its application of electric dredges and beneficial placement of dredge spoils. The utilization of electric dredges will reduce the potential cumulative impacts of additional diesel particulate matter on the surrounding community. As you may be aware, every component of the intermodal supply chain at California ports has been successfully employing aggressive measures for many years in an effort to significantly reduce the emissions of diesel emissions and improve air quality in the communities and regions surrounding our freight hubs. These include significant investments and remarkable progress made by ocean-going vessels and marine terminal operators. We welcome the USACOE joining in these ongoing industry efforts and limiting the additional emissions associated with this project.

Finally, as the Corps is well aware, the Port of Oakland will also be conducting a full Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA), which has already gone through its public scoping process and Notice of Preparation. The Port's NOP for the project EIR confirms that this environmental review will be thorough, rigorous, and broad. PMSA-7

The expansion of the turning basins in both the Inner and Outer Harbors will facilitate safety, accessibility, and lower relative and total emissions by accommodating the current and future growth in vessel size for all ocean carrier strings calling on the Port of Oakland. This will further enhance the competitive position of the Port of Oakland and its customers and tenants. Thank you for affording PMSA and other stakeholders the opportunity to comment on this important Study. PMSA-8

Sincerely,

Mike Jacob,
Vice President & General Counsel

## Responses to Comments

| Pacific Merchant Shipping Association (PMSA) | | |
|---|---|---|
| **Comment Number** | **Response** | **Location in IFR** |
| PMSA-1 | Thank you for your comment. | NA |
| PMSA-2 | Thank you for your comment. | NA |
| PMSA-3 | Thank you for your comment. | NA |
| PMSA-4 | Thank you for your comment. | NA |
| PMSA-5 | Thank you for your comment. | NA |
| PMSA-6 | Thank you for your comment. | NA |
| PMSA-7 | Thank you for your comment. | NA |
| PMSA-8 | Thank you for your comment. | NA |

# Union of Concerned Scientists Comments

Union of Concerned Scientists
ucsusa.org Two Brattle Square, Cambridge, MA 02138-3780 t 617.547.5552 f 617.864.9405
1825 K Street NW, Suite 800, Washington, DC 20006-1232 t 202.223.6133 f 202.223.6162
500 12th Street, Suite 340, Oakland, CA 94607-4087 t 510.843.1872 f 510.843.3785
One North LaSalle Street, Suite 1904, Chicago, IL 60602-4064 t 312.578.1750 f 312.578.1751

Mr. Eric Jolliffe, Environmental Planner
U.S. Army Corps of Engineers
450 Golden Gate Ave, 4th Floor
San Francisco, CA 94102
OaklandHarborTurningBasinsStudy@usace.army.mil

RE: Comments on Oakland Harbor Turning Basins Widening
Navigation Study; Revised Draft Integrated Feasibility Report and Environmental Assessment

Mr. Jolliffe,

Thank you for the opportunity to comment on the Revised Draft Integrated Feasibility Report and Environmental Assessment (Draft Report and Assessment) for the widening of the Oakland Harbor Turning Basins.

The Union of Concerned Scientists (UCS) is a national nonprofit organization that advocates for rigorous, independent science to solve our planet's most pressing problems. Along with our network of scientists and over half a million supporters, UCS employs technical analysis and effective advocacy to create innovative and practical solutions for a sustainable future.

UCS has significant concerns regarding any plan with a potential to facilitate increased container throughput at the Port of Oakland prior to the full electrification of port and drayage operations and without direct and meaningful consultation with the West Oakland Community. For far too long, the Port's neighbors have experienced significant and widespread negative health impacts from trucks and ship-related pollution. UCSA-1

The California Air Resources Board's 2008 health impacts assessment for West Oakland found that residents were subject to disproportionately high risks to cancer from diesel particulate emissions at a rate of about 1,200 excess cancers per million.[1] Of this, diesel trucks contributed over 70 percent of the potential cancer risk, followed by ocean-going vessels at 13 percent.[2] Although the Port has made progress in reducing operational emissions, the community continues to experience some of the worst air quality in the nation.

[1] California Air Resources Board, "Diesel Particulate Matter Health Risk Assessment for the West Oakland Community, December 2008, p. 36
[2] *Id.* at p. 3

In its Draft Report and Assessment, the Army Corps asserts that widening the turning basin will not increase container throughput because it would not increase the port's cargo handling capacity.[3] However, allowing ultra-large container vessels to call on the port is most certainly *a key piece of enabling* increased container throughput – vessel size, call frequency, and handling capacity are all facilitators of container throughput and should be treated as such. Given that over 90 percent of containers handled by the port are drayage trucks, the primary source of toxic air pollution in West Oakland, any study on facilitators of cargo capacity should examine the potential to affect increased drayage runs and resulting negative health outcomes from increased air pollution.[4] UCSA-2

President Biden began his Executive Order on Revitalizing Our Nation's Commitment to Environmental Justice for All by saying, "To fulfill our nation's promises of justice, liberty, and equality, every person must have clean air to breathe…."[5] Disregarding the potential for increased air pollution in a majority community of color generationally plagued with unhealthy air from freight emissions affects the opposite. UCSA-3

We request that the Army Corps revise the scope of the Draft Report and Assessment to better consider the most likely holistic air quality impacts from this project. Further, we request that the Army Corps follow Port of Oakland leadership by directly and frequently consulting with community leaders in West Oakland in meaningful ways. UCSA-4

Best regards,

Sam Wilson
Senior Vehicles Analyst Union
of Concerned Scientists
swilson@ucsusa.org

[3] U.S Army Corps of Engineers, "Oakland Harbor Turning Basins Widening Revised Draft Integrated Feasibility Report and Environmental Assessment," April 2023, p. iv

[4] Freightwaves, "Oakland's push for truck fluidity means quick turns for shippers," July 2019

[5] Executive Order No. 14096, 88 Fed. Ref. 25251, April 26, 2023

## Responses to Comments

| Union of Concerned Scientists (UCSA) | | |
|---|---|---|
| **Comment Number** | **Response** | **Location in IFR** |
| UCSA - 1 | This Project will not increase container throughput. See GC-1, R-6, R-11. | Section 5.7: Evaluation of Potential for Induced Growth |
| UCSA - 2 | The Project does not enable increased container throughput. The IFR/EA explains that the Port can achieve the same amount of growth in a future limited to smaller vessels; however, it will be more inefficient and likely result in additional air quality impacts. See GC-1. | Section 5.7: Evaluation of Potential for Induced Growth |
| UCSA – 3 | The IFR/EA does not conclude that the Project will result in increased air pollution. The Draft EIR supports this conclusion and documents how the Project is expected to reduce air quality impacts from marine vessels, Section 3.3, Table 3.3-10. In conducting the environmental justice analysis, the project team held a series of meetings, inviting the local West Oakland communities to discuss the Project and obtain their input. USACE and the Port held community stakeholder engagement meetings in August 2021, and January 2022. In addition, the team presented to the Prescott and Acorn neighborhood councils and held Q&A in March and April 2022. The EPA hosted teleconference with the West Oakland Environmental Indicators Project Group and USACE in May 2022. A hybrid in-person and virtual meeting focused on the environmental justice community was held in West Oakland in February 2023; additionally, virtual meetings focused on the EJ community were held in May and June 2023. Pursuant to NEPA, USACE determined that, with implementation of the recommended avoidance and minimization measures, the air quality impacts of the Project would be less than significant, and thus an EA is appropriate. The Port has published its Draft EIR in compliance with CEQA. The air quality analysis is found at Section 3.3 demonstrating compliance with BAAQMD standards. Additionally, Health effects are covered in the Environmental Justice Section as well. The Project would improve vessel transit. The Port has committed to funding electric dredges to reduce air impacts. Although not included in the air quality analysis, future regulations being phased in by CARB will continue to provide better air quality by regulating that marine vessels with less efficient tiered engines are no longer permissible for use (Please see Cal. Code Regs. tit. 17 § 93118.5 for more information). | 3.1: Environmental Justice |

| | | |
|---|---|---|
| UCSA - 4 | See response to UCSA – 3. | NA |

# State Water Resources Control Board Comments

# San Francisco Bay Regional Water Quality Control Board

*Sent via electronic mail: No hard copy to follow.*
June 16, 2023

Mr. Eric Jolliffe
USACE San Francisco District
450 Golden Gate Ave, 4th Floor
San Francisco CA 94102
E-mail: OaklandHarborTurningBasinsStudy@usace.army.mil

**Subject: Comments on Oakland Harbor Turning Basins Widening Navigation Study Revised Draft Integrated Feasibility Report and Environmental Assessment.**

Dear Eric Jolliffe:

The San Francisco Bay Regional Water Quality Control Board (Water Board) appreciates the invitation to comment on the Revised Draft Integrated Feasibility Report and Environmental Assessment Document (Environmental Assessment) with the comment period ending June 16, 2023. To date, the Water Board has participated in both the public meetings and the Regulatory Advisory Workgroup Meetings and provided comments on the previous edition of the Draft Environmental Assessment. Thank you for acknowledging our previous comments asking the Corps to do the following.

1. Take all suitable dredged sediment to beneficial reuse sites: On page iv of the document's Executive Summary, the Corps commits to take all suitable material, as defined by the Dredge Material Management Office, to an approved beneficial reuse site as either cover or non-cover material. **SWRCB-1**
2. Clarify whether a Water Quality Certification (Certification) under Section 401 of the Clean Water Act (CWA) is required for this project: On page 280 and 281 of the document, the Corps commits to obtaining Certification after the feasibility stage. **SWRCB-2**
3. Obtain coverage under the Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities: On page 168 of the document, it is noted the Corps will require the construction contractor to obtain coverage under and adhere to the NPDES Construction General Permit through preparation and implementation of a stormwater pollution prevention plan. **SWRCB-3**

Please note we still believe the Corps is subject to the Porter-Cologne Water Quality Control Act. As such, the Water Board intends to issue waste discharge requirements (WDRs) for this project. Additionally, the Port of Oakland, as the local sponsor, is required to be listed as a coapplicant with the Corps for all Water Board permits, including NPDES, 401 Certification, and WDRs. **SWRCB-4**

We also ask the Corps to provide a clear timeline of construction that includes the sequence in which work will be completed. **SWRCB-5**

Should you have any questions please email Jazzy Graham-Davis of my staff, at Jazzy.Graham-Davis@waterboards.ca.gov.

Sincerely,

Xavier Fernandez
Planning Division Manager

## Responses to Comments

| State Water Resources Control Board (SWRCB) | | |
|---|---|---|
| **Comment Number** | **Response** | **Location in IFR** |
| SWRCB - 1 | That is correct. Comment noted. | NA |
| SWRCB - 2 | USACE will be seeking a Section 401 Water Quality Certification during the preconstruction engineering and design phase prior to construction. We are coordinating with your office on this approach and have included a letter from your office on this in the Water Quality Appendix A03b. | Appendix A03b: Water Quality Certification |
| SWRCB - 3 | Correct. Comment noted. | NA |
| SWRCB - 4 | Comment noted. | NA |
| SWRCB - 5 | Work would commence in the spring of 2027. A detailed schedule of construction effort, timing and duration is provided in Appendix B1. | Appendix B1: Channel Design |

# California Department of Transportation Comments

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

**California Department of Transportation**

DISTRICT 4
OFFICE OF REGIONAL AND COMMUNITY PLANNING
P.O. BOX 23660, MS–10D | OAKLAND, CA 94623-0660
www.dot.ca.gov

June 16, 2023

GTS #: 04-ALA-2022-00727
GTS ID: 25358
Co/Rt/Pm: ALA/880/R31.7

Eric Jolliffe, Environmental Manager
U.S. Army Corps of Engineers
450 Golden Gate Avenue, 4th Floor
San Francisco, CA 94102

**Re: Oakland Harbor Turning Basins Widening – Revised Environmental Assessment (EA)**

Dear Eric Jolliffe:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Oakland Harbor Turning Basins Widening Project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the April 2023 revised EA.

**Project Understanding** **CalTrans-1**
The proposed project would increase the width of the Port's two existing turning basins to accommodate a vessel with a capacity of 19,000 Twenty-Foot Equivalent Uni (TEU) and a length of 1,310 feet. This project will also require state approval under California Environmental Quality Act (CEQA).

**Climate Change** **CalTrans-2**
Please keep Caltrans Transportation Planning & Local Assistance's Climate Change Branch informed about the adaptation measures as they are developed and implemented near the Oakland Harbor shoreline. Caltrans D4 is interested in engaging in multi-agency collaboration early and often, to find multi-benefit solutions that protect vulnerable shorelines, communities, infrastructure, and the environment. Please contact Vishal Ream-Rao, Caltrans Bay Area Climate Change Planning Coordinator, at vishal.ream-rao@dot.ca.gov with any questions. **CalTrans-5**

**Construction-Related Impacts** CalTrans-3

Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, please visit Caltrans Transportation Permits (*link*).

Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the State Transportation Network (STN).

**Equitable Access** CalTrans-4

If any Caltrans facilities are impacted by the project, those facilities must meet American Disabilities Act (ADA) Standards after project completion. As well, the project must maintain bicycle and pedestrian access during construction. These access considerations support Caltrans' equity mission to provide a safe, sustainable, and equitable transportation network for all users.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, or for future notifications and requests for review of new projects, please email LDR-D4@dot.ca.gov.

Sincerely,

YUNSHENG LUO
Acting District Branch Chief
Local Development Review

c: State Clearinghouse

## Responses to Comments

| California Department of Transportation (CalTrans) | | |
|---|---|---|
| **Comment Number** | **Response** | **Location in IFR** |
| CalTrans - 1 | Correct. The Port released the Draft EIR in October of 2023 and USACE has reviewed it. | NA |
| CalTrans - 2 | The USACE and Port occasionally hold meetings with the resource Agency Working Group. We will include your climate Change Planning Coordinator in future resource agency working group (RAWG) correspondence and meetings. Vishal has been added to the distribution list. | NA |
| CalTrans - 3 | Thank you for the link. Any oversize or excessive load vehicles, if used for the Project, will obtain the appropriate permit from your agency. USACE and the Port will continue to work with CALTRANS to apply for permits, develop a TMP, an ensure any impacted CALTRANS facilities will remain ADA compliant. Thank you for your review. | NA |
| CalTrans - 4 | No Caltrans facilities are expected to be impacted by this Project. Bicycle and pedestrian routes will remain open during project construction. | NA |

# California Air Resources Board Comments

June 14, 2023

Eric Jolliffe
Environmental Planner
United States Army Corps of Engineers
450 Golden Gate Avenue, 4th Floor
San Francisco, California 94102
*oaklandharborturningbasinsstudy@usace.army.mil*

*Sent via email*

Dear Eric Jollifee:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Draft Integrated Feasibility Report, Environmental Assessment (EA), and Finding of No Significant Impact (FONSI) for the Oakland Harbor Turning Basins Widening Navigations Study (Project). The Project is proposed within the Port of Oakland (Port). The United States Army Corps of Engineers (Army Corps) is the lead federal agency for the EA. CARB has reviewed the EA and FONSI and has concerns about the air quality and public health impacts should the Project be approved. The comments provided in this letter are preliminary. CARB will submit a more comprehensive comment letter on the Draft Environmental Impact Report (DEIR) that will be released for public review in late 2023.

As part of the Project, the Army Corps and Port propose to increase the width of the Port's the existing Outer Harbor Channel Turning Basin (OHTB) and Inner Harbor Turing Basin (IHTB) to accommodate larger vessels. The OHTB and IHTB were originally designed and constructed to accommodate ships with a 1,129-foot overall length, 140-foot beam, and 48-foot draft. In recent years, the length and width of the ships calling to the Port have become greater than the maximum ship dimensions required to safely transit through the two existing turning basins, which have resulted in transit restrictions limiting the efficiency of the Port. To improve the efficiency of ships calling to the Port, the Army Corps and Port propose to increase the width of these two existing turning basins to accommodate ships with a capacity of 19,000 twenty-foot equivalent units (TEU) and a length of 1,310 feet. The Army Corps states in the EA that the proposed modifications to the OHTB and IHTB would increase the TEU carrying capacity of ships calling to the Port from 6,500 to 19,000 TEU, resulting in a 192 percent increase in TEU carrying capacity.

The widening of the OHTB and IHTB would begin in July 2027 and be completed over 2.5 years. The widening of the IHTB would require dredging the basin to 50 feet below mean lower low water (MLLW), removing dryland, structures, pavement, and pile-support structures adjacent to the existing, and installing a new bulkhead. The widening of the OHTB would require dredging the basin to 50 feet, but would not impact dryland. Dredging would be performed during approved environmental windows with an electric-powered barge-mounted clamshell/excavator dredge. Overall, modifying the OHTB and IHTB would result in the installation of 2,380 linear feet of bulkhead and the removal and placement of

approximately 2.4 million cubic yards of aquatic dredged and excavated land-based materials. Most of the dredged material would be placed at a beneficial use site to protect, restore, or create aquatic wetland habitats. Some excavated and dredged material may require disposal at a Class I or II landfill.

CARB has the following preliminary concerns: (1) the Army Corps does not provide sufficient evidence in the EA supporting the assumption that the modification of the two existing turning basins would not result in long-term air quality impacts on the neighboring West Oakland Communities that have been classified as disadvantaged communities under Assembly Bill (AB) 617 (Garcia, Chapter 136, Statutes of 2017),[1] (2) the Army Corps and Port should have prepared a joint environmental impact statement/environmental impact report (Joint EIS/EIR) for the Project, and (3) the EA does not demonstrate consistency with the West Oakland Community Action Plan (WOCAP).[2] CARB urges the Army Corps to carefully consider the potential air quality and public health impacts that may result from the operation of the Project and ensure that appropriate measures are taken to minimize any negative effects. CARB urges the Army Corps and the Port to carefully consider the comments in this letter while preparing the Final Environmental Assessment (Final EA) and while preparing the draft environmental impact report (DEIR) as required under the California Environmental Quality Act (CEQA) for the Project.

## The Army Corps Did Not Adequately Evaluate the Project's Potential Operational Air Quality and Localized Health Impacts CARB-1

The Army Corps did not evaluate the potential regional air quality and localized health impacts in the EA. In Section 6.13 (Air Quality) of the EA, the Army Corps states, "the waterway improvements proposed in the future with project alternatives would not increase cargo throughput or induce growth." [3] The Army Corps asserts that there is no need to model the Project's impact on the Port's freight activities because the implementation of the Project would result in a reduction in vessel transits and overall vessel idling durations compared to the no-action alternative; resulting in a beneficial impact on air quality. The Army Corps also supports this assertion by pointing to their greenhouse gas (GHG) analysis in Section 6.13 (Greenhouse Gases) of the EA, which shows the Project reducing GHG emissions to below baseline line levels.

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[1] Assembly Bill 617, Garcia, C., Chapter 136, Statutes of 2017, modified the California Health and Safety Code, amending § 40920.6, § 42400, and § 42402, and adding § 39607.1, § 40920.8, § 42411, § 42705.5, and § 44391.2.

[2] BAAQMD. Owning Our Air: The West Oakland Community Action Plan. October 2019. Accessible at: https://www.baaqmd.gov/~/media/files/ab617-community-health/west-oakland/100219-files/final-plan-vol-1-100219-pdf.pdf?la=en

[3] Army Corps. Oakland harbor Turning Basins Widening Revised Draft Integrated Feasibility Report and Environmental Assessment. Revised April 2023. Page 226.

The statements made by the Army Corps in the EA are not entirely accurate. Although the use of larger ships to transport cargo to and from the Port may result in a reduction in ship emissions, which should have already been evaluated in the EA, the air quality and GHG analysis presented in the EA do not account for impacts from the increase TEU throughput that would result after two existing turning bases have been modified. Figure 10 of the EA shows that the Army Corps projected the number of TEU passing through the Port under a strong and weak economy. The figure indicates TEU throughput at the Port sharply increasing after 2029, which is the date the Project is expected to be completed. It is clear from this figure that the Port's future growth depends on the widening of the existing turning basins to allow ships with greater TEU capacity compared to the ships that presently call at the Port. To this end, modifying the existing turning basins would impact the freight activities at the Port. Although there will be fewer ships calling to the Port, due to the larger TEU capacity of the ships, the terminals at the Port would very likely have to acquire more onsite equipment to facilitate the transport of the TEUs off and on ships, and increase the number of heavy-duty diesel-powered trucks and locomotives to transport these TEUs out of the Port. Based on CARB's review of the air quality and GHG analysis and health risk assessment that the Army Corps prepared for the Project, there was no evaluation of the potential environmental impacts associated with the Project's impact on the Port's freight activities.

Source: Army Corps. Oakland harbor Turning Basins Widening Revised Draft Integrated Feasibility Report and

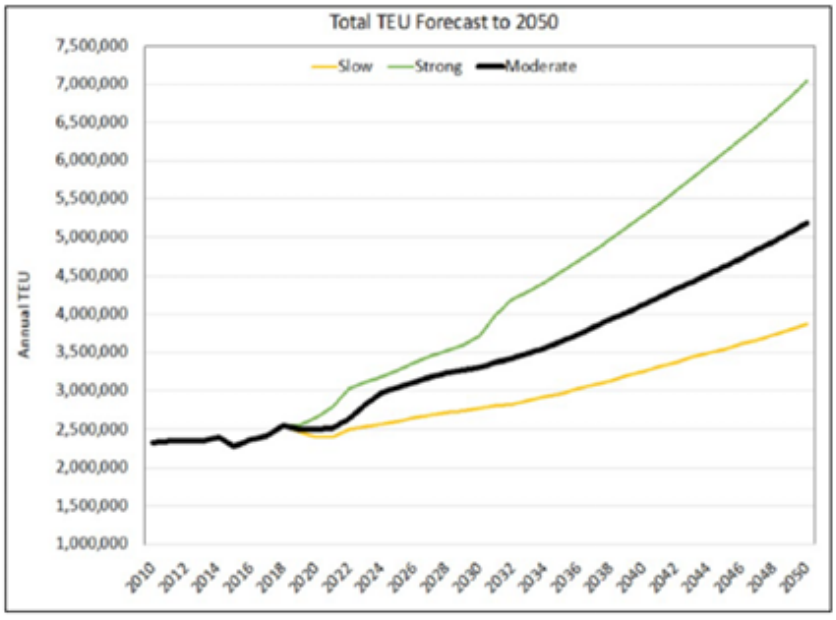


***Figure 10. Total TEU Forecast to 2050 in All Scenarios[10]***

Environmental Assessment. Revised April 2023. Page 28. Figure 10 (Total TEU Forecast to 2050 in All Scenarios)

CARB-2

Furthermore, the implementation of the Project may increase the number of heavy-duty diesel-powered truck and locomotive trips traveling through the West Oakland Community. CARB urges the Army Corps to evaluate all of the Project's impacts on air quality and public health by modeling the Project's without and with project scenario to assess how implementing the Project would increase air pollution emissions over baseline levels. CARB also urges the Port to evaluate this potential operational impact in the DEIR that is slated to be released for public review in late 2023. If it is found that the operation of the Project will result in an increase in freight activities at the terminals at the Port, the Army Corps must include mitigation measures in the EA that require the implementation of electric trucks and locomotives, Tier 4 tugboats, and onsite electric equipment.

## The Project is Inconsistent with the Strategies found in the West Oakland Community Action Plan

CARB-3

The State of California has emphasized protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill (AB) 617 (Garcia, Chapter 136, Statutes of 2017).[4] AB 617 required CARB to develop the process that creates new community-focused and community-driven action to reduce air pollution and improve public health in communities that experience disproportionate burdens from exposure to air pollutants. In response to AB 617, CARB established the Community Air Protection Program with the goal of reducing exposure in communities heavily impacted by air pollution. As part of its role in implementing AB 617, CARB must annually consider the selection of communities for development and implementation of community air monitoring plans and/or community emission reduction programs for those communities affected by a high cumulative exposure burden. The West Oakland Community is one of 15 communities statewide chosen thus far for inclusion in the Community Air Protection Program.

In 2018, the West Oakland Community was selected for the development of a Community Emissions Reduction Plan due to its high cumulative exposure burden, the presence of sensitive populations (children, elderly, and individuals with pre-existing conditions), and the socioeconomic challenges experienced by its residents. CARB approved the WOCAP in 2019, which describes strategies to achieve emission and exposure reductions throughout this community, including significantly reducing or eliminating emissions from heavy-duty mobile sources and industrial stationary sources, including strategies aimed at reducing emissions from port and rail activities associated with the Port.

Of the 89 strategies listed in the WOCAP, 12 identify the Port as the lead partner agency for planning for zero-emission trucks; addressing noise issues, collecting fees, and charging issues; creating truck and chassis parking sites; developing electric barge and tug incentives

[4] Assembly Bill 617, Garcia, C., Chapter 136, Statutes of 2017, modified the California Health and Safety Code, amending § 40920.6, § 42400, and § 42402, and adding § 39607.1, § 40920.8, § 42411, § 42705.5, and § 44391.2.

and incentives for Tier 2 and 3 marine vessels; and transitioning to clean locomotives. These strategies are listed below.[5]

- **Strategy #5:** The City of Oakland and Port of Oakland amends existing Ordinances, Resolutions, or Administrative policies to accelerate relocation of truck yards and truck repair, service, and fueling businesses in West Oakland currently located within the freeway boundaries that do not conform with the zoning designations adopted in the West Oakland Specific Plan.
- **Strategy #FSM 6:** The Bay Area Air Quality Management District (Air District) works with the Port of Oakland to optimize the Port appointment system to minimize truck idling.
- **Strategy #19:** The Port of Oakland adopts an Electrical Infrastructure Plan for the maritime waterfront areas of Oakland. This Plan seeks to remove barriers to adoption of zero-emission trucks, such as cost, land, and ownership of charging equipment.
- **Strategy #21:** The Air District works with the City and Port of Oakland and other agency and local partners to create a Sustainable Freight Advisory Committee to provide recommendations to each agency's governing board or council. The Committee's scope includes: air quality issues, enhanced/increased enforcement of truck parking and idling, improved referral and follow-up to nuisance and odor complaints related to goods movement, improvements to the Port appointment system, charging infrastructure and rates, developing land-use restrictions in industrial areas, funding, and consideration of video surveillance to enforce truck parking, route, and idling restrictions.
- **Strategy #26:** The City and Port of Oakland will work to establish permanent locations for parking and staging of Port-related trucks and cargo equipment, i.e. tractors, chassis, and containers. Such facilities will provide long-term leases to parking operators and truck owner-operators at competitive rates. Such facilities will be at the City or Port logistics center or otherwise not adjacent to West Oakland residents.
- **Strategy #37:** The Port of Oakland, as part of the 2020 and Beyond Seaport Air Quality Plan, supports the transition to zero-emission drayage truck operations, including setting interim year targets out to 2035, coordinating an extensive zero-emission truck commercialization effort, working with the City of Oakland to amend local ordinances to increase the allowable weight limits for single-axle, zero-emission trucks on local streets located within the Port and the Oakland Army Base/Gateway areas, and developing an investment plan for needed upgrades to the Port's electrical infrastructure. The Port of Oakland also works with the California

[5] BAAQMD. Owning Our Air: The West Oakland Community Action Plan. October 2019. Accessible at: https://www.baaqmd.gov/~/media/files/ab617-community-health/west-oakland/100219-files/final-plan-vol-1-100219-pdf.pdf?la=en

Public Utilities Commission and the California Energy Commission to study the development of time-of-day electric rate structures favorable to truck operators.

- **Strategy #42:** The City and Port of Oakland award long-term leases to vendors that will deliver trucker services (including mini-market and convenience stores, fast food, and fast casual restaurants), and parking to keep trucks off West Oakland streets.
- **Strategy #43:** The Port of Oakland studies the effects on truck flow and congestion due to increasing visits from larger container ships, the feasibility of an off-terminal container yard that utilizes zero-emission trucks to move containers to and from the marine terminals, and the potential efficiency gains from increasing the number of trucks hauling loaded containers on each leg of a roundtrip to the Port.
- **Strategy #50:** The Air District plans to offer financial incentives to upgrade tugs and barges operating at the Port of Oakland with cleaner engines every year.
- **Strategy #63:** The Port of Oakland implements a Clean Ship Program to increase the frequency of visits by ships with International Maritime Organization Tier 2 and Tier 3 engines.
- **Strategy #64:** The Port of Oakland implements a Clean Locomotive Program to increase the number of U.S. EPA Tier 4 compliant locomotives used by the UP, BNSF, and OGRE railways to provide service in and out of the Port of Oakland
- **Strategy #65:** The Port of Oakland studies the feasibility of using electric switcher locomotives at the two Port railyards.

By not evaluating the Project's impacts on the future freight activities at the terminals in the Port, the Army Corps does not demonstrate in the EA how the Project will be consistent with the WOCAP strategies. Specifically, the EA asserts, without providing any analysis, that the Project's impact on traffic and congestion during the construction of the Project would be minimal. The EA does not address how the Port will address truck and container parking and transiting through the West Oakland Community during its future operations. Lastly, the Army Corps did not evaluate, in the EA, how the operation of the Project will adopt the electrification and clean-engine strategies recommended in the WOCAP. By not including project design and mitigation measures in the EA that reflect the WOCAP strategies, the Project is inconsistent with the strategies identified in the WOCAP. To be consistent with the WOCAP strategies, the Army Corps and Port should analyze the Project's potential impact on the freight activities at the terminals in the Port and adopt the WOCAP strategies in the Final EA. CARB-4

## The Army Corps and Port Should Have Prepared a Joint EIS/EIR CARB-5

To fully evaluate the Project's construction and operational impact on air quality and public health, CARB urges the Army Corps and Port to coordinate their NEPA and CEQA review of these impacts. NEPA requires federal agencies to cooperate with State, Tribal, and local agencies "to the fullest extent practicable" to reduce duplication between NEPA and State,

Tribal, and local requirements. 40 C.F.R. § 1506.2(b), (c). Indeed, "[w]here State or Tribal laws or local ordinances have environmental impact statement or similar requirements in addition to but not in conflict with those in NEPA, Federal agencies may cooperate in fulfilling these requirement . . . so that one document will comply with all applicable laws." Id., § 1506.2(c).

The EA found that the construction of the Project would result in a less than significant effect on air quality but includes a list of avoidance and mitigation measures to reduce fugitive dust and diesel exhaust emissions from heavy-duty off-road construction equipment. Although the air pollutant emissions were concluded in the EA to result in a less than significant effect under NEPA, the Project's construction air pollutant emissions, when compared to the Air District's more stringent CEQA significance thresholds, may result in a significant impact under CEQA, which will require additional mitigation measures to reduce those impacts that were not evaluated in the EA. To this end, CARB urges the Army Corps and Port to prepare a joint NEPA/CEQA document that assesses the Project's construction and operational impacts and mitigation measures to reduce those impacts. CARB-6

## Conclusion

CARB is concerned about the lack of analysis presented in the EA. The Army Corps does not provide sufficient evidence in the EA supporting the assumption that the modification of the two existing turning basins would not result in long-term air quality impacts on the neighboring West Oakland Communities that have been classified as disadvantaged under AB 617. Second, the Army Corps and Port should have prepared a joint EIS/EIR for the Project. Lastly, the Army Corps does not demonstrate consistency with the WOCAP. CARB will be reviewing the Project in more detail leading up the start of the public review period for the DEIR that is anticipated to be released by the Port in late 2023. CARB-7

Given the breadth and scope of projects subject to NEPA and CEQA review throughout California that have air quality and greenhouse gas impacts, coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts. CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

CARB appreciates the opportunity to comment on the EA and FONSI and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your list of selected State agencies that will receive the Final EA. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist via email at *stanley.armstrong@arb.ca.gov*.

Sincerely,

Richard Boyd, Assistant Division Chief, Risk Transportation and Toxics Division

cc: State Clearinghouse
*state.clearinghouse@opr.ca.gov*

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Stanley Armstrong, Air Pollution Specialist, Risk Reduction Branch

| California Air Resources Board (CARB) | | |
|---|---|---|
| **Comment Number** | **Response** | **Location in IFR** |
| CARB – 1 | The IFR/EA explains in Section 5.7 that the Project will not induce growth, or otherwise increase cargo throughput. It is for that reason that no modeling of freight activities is justified because the Project will have no freight impacts. The project's reductions in vessel transit and emissions are an expected benefit but are unrelated to the fact that the Project won't impact freight activities. Further, the Project's proposed construction timeline is not directly related to the independent growth projection referenced in the comment letter. The graph shows the baseline estimation of total TEU forecast to 2050, growth expected to occur with or without the project. If those growth projections end up being accurate, vessel calls are expected to increase as well, but with Project conditions, larger, newer ships would carry more cargo allowing for more efficient navigation. The study does not support a causation connection between the growth in this graph and the Project and it is wrong for CARB to assume there is one. The air quality and greenhouse gas analyses account only for the construction emissions for the Project and documents the reduction of idling hours, thus the reduction of emissions from vessels. See Section 6.13 and 6.14 and GC-1.<br><br>Additionally, CARB incorrectly assume that ship size determines cargo quantity. Instead, the amount of cargo is determined by the market and demand. Large vessels already call the Port and terminal operators manage the loading and unloading of both large and small vessels today. Terminal operators routinely adjust operations to manage and control changes in container volumes related to holiday surges and shortened work weeks due to no-work holidays. The existing conditions which include terminal operators adjusting to servicing varying container volumes temporally is anticipated to continue to meet the projected future container vessel fleet mix. The Project was properly scoped and analyzed in accordance with all project components. Whether there is significant cargo increases or not, the same amount of cargo can be brought on fewer, larger ships, or more, smaller ships. Either way, the same amount of cargo is brought to the Port. The turning basin expansions would allow for more efficient ship transit, allowing a greater number of larger ships to call at the Port more easily. The larger ships would carry more cargo and may spend more time at harbor than a smaller ship. Additional cargo is not anticipated from the widening of the turning basin, as the same throughput of containers is anticipated, and therefore no change to the Port's operations is included in any project alternative. As the greenhouse gas emissions analysis shows, it is anticipated that the Project will result in less greenhouse gas | 5.7: Evaluation of Potential for Induced Growth, 6.13: Air Quality, 6.14: Greenhouse Gases |

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| | emissions over its lifetime when compared to the no-action alternative. Although an analysis spanning the entire project lifetime of 50 years is not required for the air quality analysis under the Clean Air Act, criteria air pollutant emissions are anticipated to follow a similar result as the greenhouse gas emissions analysis for decreased emissions from with action alternatives compared to the no-action alternative and would have improvements to air quality as a result. | |
| CARB - 2 | Additional cargo is not anticipated from the widening of the turning basin, as the same throughput of containers is anticipated. See GC-1. Therefore, no change to the Port's operations is included in any project alternative. The Draft EIR released in October of 2023, and it supports this conclusion. While the EIR states that the expansion of the turning basins is expected to temporarily increase truck trips for hauling demolition debris and excavated and dredged materials, per Section 2.5.4, the Project will not induce growth or increase truck or locomotive trips. Appendix A07 and the Draft EIR include minimization measures, such as a traffic control plan (TCP), in response to the temporary increase in truck trips. See Section 3.13.4 of the Draft EIR. Minimization measures are also put in place to minimize the amount and length of truck trips, including the use of energy-efficient equipment where applicable. See Section 3.6.4 of the Draft EIR. | Section 5.7: Evaluation of Potential for Induced Growth, Appendix A07: Avoidance and Minimization Measures |
| CARB - 3 | The IFR/EA identified environmental justice communities and addressed the health and environmental impacts on low-income and minority populations, including tribal populations, within the project area. USACE has determined that the impacts to low income or minority populations would be less than significant as a result of the Project. Additionally, the use of electric dredges minimizes the potential health and environmental impacts to potentially vulnerable communities near the project area. For more information, see the Health Risk Assessment included in Appendix A04b. Specifically regarding the consistency with the West Oakland Community Action Plan, the Port of Oakland's Draft EIR determines if the Project conflicts with other federal, regional, state, tribal, and local land uses. This is discussed in multiple sections of the Draft EIR, under the subsections of "Regulatory Setting" and "Impact Analysis and Mitigation Measures" for each resource area within Chapter 3. The Draft EIR also discusses compliance with strategies proposed in the West Oakland Community Action Plan (WOCAP), supporting USACE's position that the Project complies with WOCAP strategies. For example, in Section 3.3.4 of the Draft EIR, it states that "The WOCAP identifies several specific strategies, with some directly related to actions by the Port. The Project does not conflict with the Port-identified strategies as outlined in Table 3.3-7". Therefore, both the IFR/EA and the Draft EIR demonstrate that the Project is not inconsistent with any of the WOCAP Strategies. The Draft EIR explains, "the Proposed Project may be inconsistent with the DPM, $PM_{2.5}$, and cancer risk targets outlined in WOCAP. The | Appendix A04b: HRA, Chapter 3: Existing Environmental Conditions |

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| | WOCAP did not include construction projects in the baseline or future emission scenarios. Therefore, the Proposed Project construction emissions were not compared to DPM, $PM_{2.5}$, and cancer risk targets for comparison because there is no comparison to make." The Project does not interfere with the Port's ability to achieve zero-emission trucks, or other truck mitigation, electric barge and tugs, and Tier 2 and 3 marine vessels. Newer, larger vessels are more efficient, and their use should result in lesser emissions over time. Project is intended to allow the Port to safely and efficiently accommodate the turning of vessels longer than 1,139 feet in length and is not anticipated to change the overall projected container volumes serviced at the Port. The expansion of port operations is not within the purview of USACE nor is it within the purpose of this Project. | |
| CARB - 4 | See CARB-3, GC-1, and CARB – 1 and CARB – 2 for information relating to traffic and future freight activities at the Port. | NA |
| CARB – 5 | The Draft EIR was released in October of 2023 and delaying the NEPA document to correspond with CEQA would have jeopardized USACE's ability to timely request authorization for the Project. While USACE and the Port have actively coordinated to ensure alignment between the NEPA and CEQA documents, these documents were too far along at the time of re-release to integrate them. Such integration would be time consuming, require significant public resources from both USACE and the Port, and delay any request for authorization, as explained previously. Therefore, USACE and the Port were unable to integrate the NEPA and CEQA document. As requested by CARB, the Draft EIR details how the Project is in compliance with the BAAQMD thresholds being referenced. See Section 6.13 of the IFR/EA. See Section 3.3.4 of the Draft EIR for compliance information and measures for BAAQMD thresholds. The Draft EIR does not include any new measures not addressed in the IFR/EA. | NA |
| CARB - 6 | See response to CARB - 5 | NA |
| CARB - 7 | See CARB-1 through 6. | NA |

# Bay Area Air Quality Management District Comments

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT



June 16, 2023

Mr. Eric Jolliffe
Environmental Manager
US Army Corps of Engineers
450 Golden Gate Ave 4th Floor
San Francisco, 94102

RE: Oakland Harbor Turning Basins Widening Navigation Study -- Revised Integrated Feasibility Report and Environmental Assessment

Dear Mr. Jolliffe:

Bay Area Air Quality Management District (Air District) staff has reviewed the Revised Integrated Feasibility Report and Environmental Assessment (Revised Feasibility Report) for the Oakland Harbor Turning Basins Widening Navigation Study Project (Project). The United States Army Corps of Engineers (USACE) is the federal sponsor, and the Port of Oakland (Port) is the local sponsor of the Project. The stated purpose of the Revised Feasibility Report is to determine if there is a technically feasible, economically justifiable, and environmentally acceptable recommendation for federal participation in an improvement project to the existing federal navigation channels of Oakland Harbor.

The Project proposes to expand the Outer Harbor Channel and Outer Harbor Turning Basin (OHTB) and the Inner Harbor Channel and Inner Harbor Turning Basin (IHTB). The OHTB is south of the San Francisco-Oakland Bay Bridge and is maintained to a depth of -50 feet mean lower low water (MLLW). The OHTB serves the existing TraPac and Ben E. Nutter terminals. The OHTB expansion would widen the existing turning basin from 1,650 to 1,965 feet, which would be dredged to a depth of -50 feet MLLW. The IHTB is approximately 2.5 miles from the Inner Harbor entrance and is maintained to -50 feet MLLW. The IHTB serves the existing Oakland International Container, Matson, and Schnitzer Steel terminals. The IHTB expansion would widen the existing turning basin from 1,500 feet to 1,834 feet, which would be dredged to a depth of -50 feet MLLW. In addition to in-water work to widen the IHTB, land at Schnitzer Steel, Howard Terminal, and private property located along the Alameda shoreline would be impacted.

The community of West Oakland is located east and northeast of the Outer Harbor Channel and Inner Harbor Channel, respectively, and the Feasibility Report identifies the West Clawson neighborhood of West Oakland as an Environmental Justice (EJ) community within one mile of the Project. The Air District and the West Oakland Environmental Indicators Project (WOEIP) worked with a community Steering Committee to develop the West Oakland Community Action Plan (WOCAP), adopted by the Air District Board of Directors and the California Air Resources Board (CARB) in 2019. The WOCAP sets goals and targets for reducing exposure to fine particulate matter (PM2.5), diesel emissions and cancer risk from toxic air contaminants

(TACs). In the City of Alameda to the west and adjacent to the Inner Harbor turning basin is a growing neighborhood and a heavily used youth sports complex.

The Air District appreciates the USACE expanding the air quality assessment in response to recommendations made by multiple commentators; the expanded assessment of greenhouse gas (GHG) emissions and the assessment of health risks from construction activity both provide useful information for comparing potential impacts from each project alternative. The Air District also commends the USACE for its ongoing efforts to ensure robust participation from the local community, especially in the recent re-scheduling of the second public workshop on the Revised Feasibility Report. Close coordination with local communities is essential for determining the potential benefits and harm caused by USACE projects; coordination should include use of locally developed criteria for assessing environmental impacts. The Revised Feasibility Report concludes, in part, that the Project would have no impact based solely on an evaluation of construction related emissions using the General Conformity criteria of not exceeding, in any calendar year during construction, the ozone precursors and fine particulate matter ($PM_{2.5}$) *de minimis* threshold of 100 tons per year. The Air District does not support the use of General Conformity *de minimis* levels as appropriate thresholds for identifying potentially significant local and regional air quality impacts from this Project. We encourage the USACE to utilize the locally appropriate and more health protective thresholds adopted by the Air District. BAAQ MD-1

Air District staff also continues to recommend that the USACE and the Port evaluate the Project's potential air quality impacts to local communities in a detailed and publicly accessible environmental analysis prepared pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Protection Act (NEPA). We recommend the CEQA analysis rely on the Air District's current CEQA Air Quality Guidelines to establish thresholds, and fully evaluate the regional criteria pollutants, local risks and hazards, and greenhouse gases of the Project. We provided recommendations on the appropriate content for a combined EIS/EIR in our February 14, 2022, comment and our July 5, 2022, letter in response to the Port of Oakland's *Notice of Preparation*. BAAQ MD-2

As we noted in both letters, *any increases* in local $PM_{2.5}$, diesel emissions or cancer risk would be harmful to the health of residents in West Oakland and the City of Alameda. Container vessels visiting the Port of Oakland are the largest source of emissions impacting the local communities. Vessel visits have been declining since 2016, while the number of containers handled annually has been relatively steady; the decrease in ship visits is the sole reason for the Port of Oakland meeting its 2020 air quality goals. More importantly, the decrease in ship visits since 2016 has reduced exposure to harmful pollutants. The proposed project would reverse this trend, with the preferred project potentially being the least-worse increase in emissions yet characterized in the Revised Feasibility Report as beneficial to the already overburdened West Oakland community. BAAQM D - 3 BAAQM D-4

The Revised Feasibility Report only examines potential impacts from construction activities. Because of this narrow scope, there is insufficient information to determine if there will be a net increase in operational emissions from current conditions or if emissions will decrease due to projected gains in operational efficiency. BAAQM D-5

The Air District recommends, as part of a combined NEPA/CEQA document, the USACE extend the Air Quality assessment in the Revised Feasibility Report to include:

(1) For each alternative, an assessment of vessel maneuvering and at-berth emissions, taking into account the predicted fleet mix, engine emissions rates, average time at berth by vessel size, utilization of shore power, maneuvering times by ship size, and idling emissions while at anchorage awaiting an open berth. BAAQMD-6
(2) Expansion of the GHG analysis to include criteria and toxic pollutants.

We appreciate the commitment shown by the Port of Oakland to minimize health impacts from construction by using electric dredges. The health risk assessment included in the Revised Feasibility Report shows the significant benefits of avoiding emissions by using the cleanest available equipment. However, as shown on Figure 11 in Appendix A4b, even with the use of electric dredges, youths at the heavily used Estuary sports fields in Alameda will potentially suffer from exposure to harmful emissions. This impact can be avoided by requiring the use of EPA-certified Tier 4 engines, ideally equipped with diesel particulate filters, in the push tugs, service boats and other marine craft supporting any dredging operations. BAAQMD-7

Air District staff are available to assist the USACE and Port in addressing these comments and to assist during the EIS/EIR development process. If you have questions or would like to discuss Air District recommendations, please contact Alison Kirk, Assistant Manager, at akirk@baaqmd.gov.

Sincerely,

Dr. Philip M. Fine
Executive Officer/Air Pollution Control Officer

Cc: BAAQMD Chairperson John J. Bauters
BAAQMD Director Juan Gonzalez
BAAQMD Director David Haubert
BAAQMD Director Nate Miley
Brian Beveridge, West Oakland Environmental Indicators Project
Ms. Margaret Gordon, West Oakland Environmental Indicators Project
Danny Wan, Executive Director, Port of Oakland
Brenda Goeden, Bay Conservation and Development Commission
Connell Dunning, U.S. Environmental Protection Agency, Region 9

| Bay Area Air Quality Management District (BAAQMD) | | |
|---|---|---|
| **Comment Number** | **Response** | **Location in IFR** |
| BAAQMD - 1 | USACE has determined that the Clean Air Act's General Conformity *de minimis* thresholds are appropriate for NEPA analysis per the EPA Nonattainment Areas for Criteria Air Pollutant Listing (Greenbook). Per the EPA's letter dated 16JUN2023, it was verified the anticipated emissions as disclosed in the air quality analysis of the IFR/EA are in compliance with General Conformity thresholds. The Port released their Draft EIR in October 2023 which uses the Air District thresholds, confirming that the Project is also compliant with those thresholds. See section 3.3 and 4.4 of the Draft EIR for more information. | Section 6.13: Air Quality |
| BAAQMD - 2 | USACE appreciates your recommendation and directs you to the Draft EIR's analysis, which conducts that CEQA analysis. See response to comment BAAQMD-1. | NA |
| BAAQMD – 3/4 | The IFR/EA and Draft EIR both support that the Project will result in a net decrease of marine vessel emissions, including $PM_{2.5}$, when compared to the No Action Alternative. See Section 6.1.3, 6.14.7, and the Draft EIR, Section 3.3, Table 3.3-10. As BAAQMD's comment recognizes, the Port has been able to maintain the same throughput despite decreasing vessel visits, which BAAQMD believes is responsible for the Port's ability to meet air quality goals. It is this very point that supports the conclusion that this Project will ultimately result in less air quality impacts than a future without the project. This fact shows that an equal or greater amount of TEU can be processed by the Port with larger vessels, but a smaller number of vessel calls, which results in less air impacts. As the international shipping fleet moves to larger, more efficient vessels, emissions will be reduced per TEU. This Project will facilitate additional efficiency gains by allowing those larger vessels to maneuver more easily through the Port, avoiding unnecessary anchoring and transit disruptions for other vessels. A detailed Health Risk Assessment (HRA) was prepared and included in Appendix A04b. The HRA informs the Environmental Justice sections in 3.1 and 6.1 | 6.1.3: Inner Harbor and Outer Harbor Turning Basin Expansion, 6.14.7: Indirect Long-Term Greenhouse Gas Emissions; Appendix A04b: HRA |
| BAAQMD – 5 | See GC-1 for an explanation as to why the Project will not impact Port operations. Further See Draft EIR, Section 3.3, Table 3.3-10 for how the Project will result in less marine vessel air quality impacts. Additionally, since future emissions thresholds are adjusted over time to ensure a given air-basin stays within the NAAQS for various criteria air pollutants, the future air quality thresholds cannot be known at this time to provide a meaningful comparison and are not required for General Conformity under the Clean Air Act. Therefore, the scope of the air quality analysis was appropriate for the Project. | 6.13: Air Quality |
| BAAQMD – 6 | The IFR/EA has been revised to include an analysis of criteria air pollutants and GHG emissions comparing the future operational baseline with and without the project. Emissions from future | 6.13: Air Quality, |

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| | operations with and without widening both the Outer and Inner Harbor Turning Basins (the Project) in years 2030, 2040, and 2050 for each operating mode (including maneuvering and hoteling at berth) are now included (see Appendix A04c) including a description of the assumptions used in calculating future operation emissions. These assumptions include, for each future scenario, anticipated vessel fleet size distribution, number of calls and average time at berth by vessel size, shore power utilization, and time and speed in transiting legs (including maneuvering) between berths at the Port and the San Francisco Sea buoy (oftentimes referred to as the pilot's buoy) located in the Pilots Area outside of the Golden Gate. Anchorage emissions under each future scenario were assumed to remain the same as in the base case and are therefore not included.<br><br>For economic reasons, vessel operators tend to avoid anchoring whenever possible. If a vessel is approaching the Bay but a suitable berth is not available, the vessel master may choose to "slow steam" to conserve fuel and delay arrival until the berth frees up. On the other hand, the vessel may proceed to anchor if, for example, routine maintenance or reprovisioning is needed or if the vessel's post-call schedule dictates a longer delay. Weather and sea conditions may also play a role in the decision. There is no direct link between vessel size distribution and time spent at anchor. Larger vessels take up more space at berth but also have the capacity to handle a larger volume of cargo, thus requiring fewer calls. Consequently, there is no reliable method of predicting future total anchoring activity based on changes in fleet mix or number of calls under future scenarios.<br><br>The greenhouse gas analysis is performed in compliance with NEPA using the CEQ Guidance on Consideration of Greenhouse Gas Emissions and Climate Change and greenhouse gases are discussed in section 6.14. Air quality is discussed in section 6.13 of the IFR/EA and greenhouse gases are discussed in section 6.14 with supporting documentation included in Appendix A4c. Air toxic emissions were not quantified but are primarily from diesel exhaust and would be similar to the PM exhaust emissions that are reported. The analysis shows that for the Project, emissions of criteria pollutants and GHG emissions will decrease during operation. | 6.14: Greenhouse Gases, Appendix A04c: GHG Analysis |
| BAAQMD - 7 | The Project includes using electric dredging equipment. Landside operations are not planned to occur on weekends when large gatherings are anticipated at the Estuary sports fields. Additionally, landside work is scheduled to conclude no later than 7 pm (Monday – Friday). Vessels supporting the dredging operation will comply with the most recently updated CARB Commercial Harbor Craft Regulation (effective December 30, 2022) to include the most effective Verified Diesel Emission Control Strategies (VDECS) available. | 6.13: Air Quality |

# San Francisco Bay Conservation and Development Commission Comments

San Francisco Bay Conservation and Development Commission
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State of California | Gavin Newsom – Governor | info@bcdc.ca.gov | www.bcdc.ca.gov

June 15, 2023

Mr. Eric Jolliffe
U.S. Army Corps of Engineers, San Francisco District
450 Golden Gate Ave. 4th Floor
San Francisco, CA 94102
Via Email: <OaklandHarborTurningBasinsStudy@usace.army.mil>

**SUBJECT: DRAFT Integrated Feasibility Report and Environmental Assessment for the Oakland Harbor Turning Basins Widening Navigation Study; (BCDC Consistency Determination No. C2023.003.00)**

Dear Mr. Jolliffe:

Thank you for the opportunity to comment on the U.S. Army Corps of Engineers' (USACE) Revised Draft Integrated Feasibility Report and Environmental Assessment (RDIFR/EA) for the proposed Oakland Harbor Inner and Outer Turning Basin Widening, dated April 2023, with notice of availability received via email on April 27, 2023. The comment period for the revised document was initially until June 12, 2023, but upon request from commentors who were seeking a 60-day review period, the USACE provided an additional 4 days to review and comment, until June 16, 2023. We also note during this period the USACE submitted a request for consistency determination concurrence on the proposed preferred alternative, to which the San Francisco Bay Conservation and Development Commission's (Commission) staff responded within the required 14-day response period and has requested additional information. That letter is attached herein for reference. The Commission's comments on the RDIFR/EA are provided below for your consideration.

According to the RDIFR/EA, the purpose of the proposed action is to widen the Inner Harbor Turning Basin (IHTB) and Outer Harbor Turning Basin (OHTB) to allow larger container vessels, including those with a 19,000 TEU (20-foot equivalent) capacity, to turn around more efficiently and make more frequent calls at the Port of Oakland (Port) as well as improve navigation safety. The proposed widening of the IHTB involves demolition of existing landside structures at both Howard Terminal and Alameda; fast land excavation; dredging; installation of bulkheads at the Alameda, Howard Terminal, and Schnitzer Steel sites, retaining walls and rock revetments; and new piles in the IHTB. The OHTB widening includes dredging areas of subtidal habitat not previously dredged.

In the RDIFR/EA, the Tentatively Selected Plan (Alternative D-2) has been selected as the Recommended Plan, became the Comprehensive Benefits Plan (CBP), and is considered the equivalent to the Nation Economic Development (NED). As the CBP, the Recommended Plan includes beneficial reuse of all dredged sediment that meets site acceptance criteria. It is our understanding that the USACE Headquarters does not consider the use of an electric dredge as

necessary, but rather as a mitigation measure, and therefore is relying on the local project sponsor to provide the electric dredges as a betterment.

The Port, as the local project sponsor, is providing this betterment. We thank the USACE team for undertaking the effort to develop the CBP and recommending both beneficial reuse of dredged sediment as well as the electric dredges. We also thank the Port for providing the funding for the electric dredge as we believe this is a vitally important way to address impacts to the surrounding community. The Commission is disappointed that the USACE Headquarters did not accept the use of electric dredges as proposed because, as the San Francisco District is aware, the West Oakland Communities have been classified as disadvantaged communities under Assembly Bill (AB) 617 (Garcia, Chapter 136, Statutes of 2017), is an environmental justice community that is overburdened by pollution impacts of the Port activities, most specifically, the emissions from dredges; vessels coming to call; as well as truck exhaust and traffic congestion. We note that on April 21, 2023, President Biden issued Executive Order 14096. It requires federal agencies to consider cumulative pollution burdens and public health impacts. It appears to the Commission that to be consistent with the Executive Order the USACE should include electric dredges in its Recommended Plan. BCDC-1

The revision to the previously proposed plan includes a realignment of the IHTB, which in turn requires an adjustment to the proposed excavated fast land that now includes the need for a retaining structure in front of the IHTB and requires fill in the Bay in the form of sheet piles, pilings, and rock fill. Further, the revisions to the Recommended Project (Alt D-2) includes the placement of an additional shoreline revetment in front of the Schnitzer Steel terminal. The revised project increases the removal of fast land (land that is above the high-water mark) at the Alameda Gateway from approximately 4.9 acres to 6.0 acres; reduces the removal of fast land at Schnitzer Steel from 0.2 acres to 0 acres; and increases removal of fast land at Howard Terminal from 2.3 acres to 3.6 acres. Overall, the amount of dredged and excavated land has also increased from approximately 1.9 million cubic yards (cy) to 2.4 million cy. As Commission staff understands the revisions, there were no changes to the OHTB included in the revision. The construction schedule remains unchanged with commencement expected in June 2027 and completion in December 2029. Please correct any of the information here if we have misunderstood the changes. BCDC-2

Commission staff has partially reviewed the RDIFR/EA due to workload and the submission of the consistency determination for the project during the NEPA comment period. The Commission itself has not reviewed the RDIFR/EA, the staff comments discussed below are based the NEPA requirements for the Recommended Project, the federal Coastal Zone Management Act, as amended (CZMA), the Commission's federally approved CZMA Program for San Francisco Bay, which includes the McAteer-Petris Act and the San Francisco Bay Plan (Bay Plan), the Suisun Marsh Preservation Act and the Suisun Marsh Protection Plan, though this project in not located within Suisun Bay, one of the proposed placement sites, Montezuma Wetlands Restoration Project is. The proposed project and actions are located within the Bay, the Bay shoreline, and have the potential to affect the San Francisco Bay Coastal Zone. The following comments are offered for the USACE's consideration, and consist of both general and

specific comments concerning the RDIFR/EA. The Commission staff's comments on the consistency determination concurrence request can be found in the attached letter.

## General Comments

We understand that five study alternatives were analyzed for the project and appreciate your response to our comment on Alternative C, the alternative that has the least impact to Bay resources. From our review of the document, it seems most berths at the Port have been deepened to minus. If the Port were to reorganize its terminal operations such that the larger ships called at the Outer Harbor, the air impacts and ship traffic impacts of the larger ships would be reduced significantly and still meet the Port's ability to accommodate the ultra large ships. We understand that this alternative would require shifting tenants to different berthing areas, but it seems cost savings could be realized from these efficiencies as well. We also understand that this alternative is not included in the comprehensive benefits plan, but also recognize that development of a comprehensive benefits package is a process in which the San Francisco District proposes such an alternative and provides the basis for that determination. If the argument is made well, e.g., efficiencies of concentrating larger ships in the outer harbor, a reduced construction project and reduced loss of land, reduced air quality impacts from large ships slowly traversing the Inner Harbor, use of an electric dredge and beneficial reuse of appropriate sediments, etc., it could become the CBP. BCDC-3 BCDC-4 BCDC-5

Regarding the NEPA review process, the Commission continues to believe that the USACE and the Port should align the release of the NEPA and CEQA documents at the same time and contain consistent, but improved language that is allowable and required under the various NEPA and CEQA laws. Aligning these two processes would reduce government waste and provide for more efficient coordination. It would also reduce the burden to the community of having to review separate documents separated by months and such that no easy comparison and coordination is possible. In short, the process of separate documents is creating a burden to an already overburdened community as the NEPA documents describes in Chapters 3 and 6. BCDC-6

## Specific Comments

1. **Indirect Impacts, Growth Inducement, and Air Quality.** Thank you for the response to the Commission's comment on indirect impacts and inclusion of the section on induced growth in the RDIFR/EA. We understand that the USACE is focused on efficiencies within the inner and outer harbor, and that the Port has limited capability to accommodate an infinite amount of cargo due to availability of berths, time to load and offload vessels, and landside space and other constraints. However, the USACE state that the Port currently has 28 ships call on average a week. By increasing efficiency, up to 43 ships could come to call on an average week, thereby increasing the number of large ships coming to call and the flow of goods and trucks on and off Port facilities. Further, please explain whether the Port expects a decrease in smaller ships calling at the Port, and if so, the anticipated reduction. Please explain whether an expanded turning basin would *encourage* the private terminal operators to make investments to BCDC-7

upgrade their cargo handling capacity in response to the increase in larger ships calling more frequently at the Port, and whether that would in turn lead to *higher-than-expected growth*. If this is the case, please explain if *this higher-than-expected* growth would then in turn increase the emissions from vessels and trucks, as well as traffic congestion resulting from the proposed project. It is also important to note that as the large ships must slow

significantly coming into Port, particularly the Inner Harbor, and thereby increase emissions due to the slower transit mode. The USACE should evaluate this increase and the likely associated increase in emissions from diesel equipment associated with moving the goods off and onto the Port site.

2. **Beneficial Reuse of Dredged Sediment and Soils**. The Commission staff continues to appreciate the USACE's commitment to beneficially reuse the sediment dredged and excavated from the Recommended Project. However, we note that Table 39 describes the majority of the sediment, 2.09 million cy as foundation quality sediment, and only 157,000 cy as cover quality sediment. This section includes a discussion of placement of the sediment at a beneficial reuse site, conceptually 5 feet deep. In this scenario and considering the volume of cover quality and foundation quality sediment, it does not appear possible for the foundation quality sediment to be covered with the requisite 3 feet of cover quality sediment. Please explain the reasoning here, and where the USACE anticipates the cover quality sediment necessary to cover the foundation quality sediment would be derived from. In addition, please describe whether the USACE anticipates beneficially reusing the additional annual maintenance dredged sediment from the larger turning basins. BCDC-8

3. **Environmental Work Window.** Thank you for your response to our comment regarding work within the environmental work window and explaining the USACE anticipates that USFWS will authorize work during the least tern breeding season and allow in water work prior to August 1st each year. We look forward to understanding the USFWS's opinion in this regard as well as receiving California Department of Fish and Wildlife's position on this issue. BCDC-9

   In addition to the dredging work, we'd also like to note that the pile driving effects as well and turbidity from the in-water work may disturb the fish the nesting terns rely on for forage. This may in turn require terns to forage further from the nesting site leading to poor nesting success. Further, as noted from the Biological Assessment the assumption is being made that the noise created by work in the inner channel may be contained by the surrounding land, but it may in fact be amplified by the narrowness of the channel. Further, it appears that the USACE is only considering the impacts the least tern from the IHTB work, while the OHTB is closer and more likely to affect the least tern foraging as the area proposed for deepening is shallow water habitat favored by the terns and other diving piscivores. Please further describe how these potential effects can be minimized or avoided.

4. **Water Quality and Contaminated Sediment.** Thank you for clarifying how water quality may be impacted by the project's construction and dredging activity phases and providing the 404(b)1 analysis in Appendix A-3. While we appreciate that dissolved oxygen and suspended sediment are potential impacts that can be seen as temporary, the project description states that these activities will be ongoing 24 hours a day, seven days a week for over a year, potentially two years. This prolonged dredging and construction activity would lead to long term impacts rather than temporary impacts. In addition, the suspended sediment may contain contaminants that when settled out, BCDC-10

   may impact ground fish and other fish that forge in the benthos, as well as the benthic community itself. Please provide more information regarding how newly settled contaminated sediment may create a water or sediment quality issue.

   Further, it would be helpful to explain how the land excavation and dredging would occur – would a temporary sheet pile wall be installed to contain the excavated and newly dredged areas while construction and dredging are on going and then be removed after the work has reached project depth? This method could contain contaminants that may be in contact with the environment during construction.

5. **Environmental Justice and Social Equity.** Thank you for your continued work to provide meaningful community engagement with the local community. We appreciate your work with our Environmental Justice Manager in this regard and have noted the additional meetings in the effected community. That said, Commission staff believes that the USACE and the Port can do more to address the concerns of the community, particularly regarding how the indirect and cumulative impacts from the widening of the turning basins and anticipated additional cargo would affect the community immediately adjacent to the project via air quality and congestion impacts. We appreciate the noise analysis, but even with the mitigation measures propose, and the existing Port and freeway noise, the construction project is anticipated to have additional cumulative impacts that affect quality of life in the surrounding areas that does not appear to have not been discussed at public meetings. We also believe attending neighborhood meetings would provide additional opportunities for the community to understand and provide comments on the project such that a better awareness is created. We recommend that, at a minimum, outreach be conducted to all 12 census tracts (CT 4017, CT 9820, CT 4287, CT 4022, CT 4025, CT4026, CT 4030, CT 4031, CT 4033, CT 4105, CT 4273, and CT 4276) within a one-mile radius that USACE identified as vulnerable so that they are given an opportunity for involvement during the planning stage of the project. BCDC-11 BCDC-17

   a. **Sediment Contamination.** In the previous BCDC comment letter, it was requested that "the West Oakland Community be provided with an explanation using nontechnical terms of how the dredged sediment will be handled, where it will be placed, and what beneficial reuse is." Additionally, we suggested the USACE provide an explanation of potential effects of on communities near the landfills in which

contaminated sediment is proposed to be placed. We are appreciative on the effort to include a brief explanation about the importance of beneficial reuse for wetland restoration and the indirect effects it has on shoreline communities, and critical infrastructure. We did not find an explanation on how the USACE plans to reduce potential disproportionate impacts" from landfill placement to nearby communities.

b. **Cumulative Impacts from Port Operations.** In much of the RDIFR/EA the USACE does not include an analysis of the cumulative impacts of Port Operations and increased ship traffic on the local communities. However, there are instances in which the USACE uses efficiencies in Port operations as justifications for the proposed project. The Commission believes that changes in Port operations related to the increase in large vessels, and potentially more vessels annually, created a linkage to cumulative impacts of Port operations and therefore should be addressed in this document.

6. **Fish, Other Aquatic Organisms, and Wildlife.** Section 6.5 discusses how the project would minimize adverse effects to wildlife, specifically terrestrial and pelagic species and habitat. Under Alternative B (6.5.1-Inner Harbor Turning Basin Expansion), it states that "*impacts to terrestrial wildlife would be negligible.*" Furthermore, Alternative C (6.5.2-Outer Turning Basin Expansion) states that "*No terrestrial areas would be modified by the expansion....so no effect to such resources would occur.*" The Commission finds these statements to be misleading and believes that there will be impacts to foraging behavior for bird species, particular California least tern, as temporary increases to turbidity will occur and fish will move from the project area. Therefore, we recommend that additional information be provided for mitigation towards terrestrial species and habitat. **BCDC-12**

USACE has determined that the project may affect but is not likely to adversely affect (NLAA), federal ESA-listed threatened or endangered species or their critical habitats. USACE plans to submit NLAA determinations for the Proposed Action to NMFS and USFWS and request their concurrences. We appreciate that USACE plans to also submit a request for NMFS consultation on potential effects to essential fish habitat (EFH). However, Commission staff do not agree with the statement in this section that, "*Overall, expansion of the IHTB would result in an increase of open waters and soft- substrate bottom, increasing the extent of EFH in the project area,*" because annual maintenance dredging of the turning basins would continually disrupt the benthic habitat, which does not equate to enhancing essential fish habitat in the project area.

In the USACE response to our previous comment letter, it was suggested that the document has been modified to address quoted statement above referencing "Section 6.4.1" of the revised document. Section 6.4.1 focuses on water quality for Alternative B, and it is unclear how this referenced section connects to EFH. We believe this is a typo and the correct reference is "6.6.1-Inner Harbor Turning Basin, Subsection: Essential Fish Habitat" of the document. After reviewing this section, there is still a need to clarify

the statement and support it with any available information about dredging that may have been generated by research, site monitoring, or the review of related literature.

7. **Shoreline Protection and Rising Seas.** Shoreline Protection Policy 5 states in part that, "All shoreline protection projects should evaluate the use of natural and nature-based features … and should incorporate these features to the greatest extent practicable. Thank you for the willingness to consider and potentially implement surface treatments that would incorporate some habitat benefits to portions of the bulkhead being replaced. We look forward to this discussion as part of the consistency determination negotiations. BCDC-13

   In reviewing the RDIFR/EA, we did not find any reference to how the project can provide resiliency or adaptation measures for rising seas. While we understand that much of the Port and Oakland waterfront has not yet addressed this issue, this project includes a significant realignment of a portion of the Port shoreline, and as such should include measures to reduce vulnerability and increase resilience to rising Bay waters. Please include this analysis in the final document and include measures to address sea level rise.

8. **Public Access and Recreation**. As previously stated, the Commission's federally approved San Francisco Bay CZMA program requires the Commission to ensure that "any project within its jurisdiction provide maximum feasible public access to the Bay's shoreline consistent with the project." Public Access Policy 1 states in part that, "A proposed fill project should increase public access to the Bay to the maximum extent feasible." When public access is not feasible on site, the Commission looks to the project proponent to provide offsite, but nearby public access, such as overlooks and viewing opportunities, or funds for alternate public access in the affected community commeasure with the project. Please address how the project will provide the maximum feasible public access consistent with the project's proposed fill. BCDC-14

   Regarding impact to existing recreational activities, we appreciate the clarification regarding how the project will impact public access and views during and postconstruction. Section 6.9.1 states that the expansion of the Inner Turning Basin will cause temporary noise and air quality impacts, causing the public to relocate from Estuary Park to other locations away from the project area. While we appreciate Estuary Park would remain open, we suggest providing information to the public about the project's purpose, temporary impacts, and alternative recreational opportunities nearby not affected by the project, and/or provide options for public use during the two-year construction period. Similarly, information should be provided to the recreational fishing community and boating community about the timing and potential limitations of estuary use during and post construction.

9. **Consistency with the San Francisco Bay Area Seaport Plan (Seaport Plan).** The Seaport Plan is an element of the Bay Plan and is used by BCDC in making port-related BCDC-15

regulatory decisions on permit applications, consistency determinations, and related matters (See Section 66651 of the McAteer-Petris Act, codified at the Government Code). BCDC is currently undertaking a general update to the Seaport Plan (Bay Plan Amendment 1-19), with a public hearing and vote anticipated this fall or early winter.

On June 30, 2022, the Commission voted to remove the Port Priority Use designation from Howard Terminal as part of as separate amendment to the Bay Plan (BPA 2-19). However, the Howard Terminal site remains subject to the requirements of AB 1191 (Bonta, 2019), which guides the development process for a project defined in that law as the "Oakland Sports and Mixed-Use Project." As provided in section 8(b) of AB 1191:

> "If the port and the Oakland Athletics have not entered into a binding agreement by January 1, 2025, that allows for the construction of the Oakland Sports and MixedUse Project, the port priority use designation shall be automatically reinstated on the Howard Terminal property as if it had not been deleted pursuant to BCDC's Seaport Plan and Bay Plan amendment process. If the port and the Oakland Athletics have entered into a binding agreement by January 1, 2025, that allows for the development of the project, but that agreement is subsequently terminated before construction has commenced on all or any portion of the Howard Terminal property, then the port priority use designation shall be automatically reinstated, if it had previously been deleted pursuant to BCDC's Seaport Plan and Bay Plan amendment process, on the undeveloped portions of the Howard Terminal property for which the agreement has terminated."

10. **Federal Standard**. In the executive summary and in the plan formulation portion of the DIFR/EA, there is a description of the development of and selection of the Federal Standard project in addition to the NED. Our understanding of development of the federal standard for a project is that it is specifically limited to operations and maintenance applications. Please explain the basis for using this analysis in a capital improvement project or remove the reference if it was inadvertently used erroneously. **BCDC-16**

Thank you for providing staff with the opportunity to review the RDIFR/EA for the proposed project. We will continue to update the USACE on the Port Priority Use issue going forward. If you should have questions regarding this letter, the San Francisco Bay Coastal Zone Management Program, or the Commission's policies or the consistency determination process, please feel free to contact me at (415) 352-3623 or brenda.goeden@bcdc.ca.gov. We look forward to working with USACE to further evaluate this proposed project.

Sincerely,

DocuSigned by:
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BRENDA GOEDEN

## Responses to Comments

| San Francisco Bay Conservation and Development Commission (BCDC) | | |
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| **Comment Number** | **Response** | **Location in IFR** |
| BCDC - 1 | Comment noted. The Port of Oakland has committed to implementing the Project with electric dredges. | NA |
| BCDC - 2 | Table ES-1 in the executive summary of the IFR/EA presents the quantity changes resultant from the basin alignment shifts. Some of the numbers differ very slightly from your comment. The removal of fast land at Howard Terminal has increased to 3.9 acres rather than the 3.6 acres in your comment. The Outer Harbor Turning Basin has been shifted slightly to the north which has resulted in an increase in the total dredged volume for that basin from 0.9 million cubic yards to 1.3 million cubic yards. The northward shift also increases the area of subtidal habitat affected from 15 acres to 22.9 acres. | Executive Summary |
| BCDC – 3 | USACE understands BCDC's comment to be a favoring for only widening the Outer Harbor and redirecting the larger ships to that Harbor only. However, marine terminals are leased and operated by private stevedoring companies. These private stevedoring companies compete for the business of servicing (loading/unloading containers) shipping companies. The Port does not have the authority to direct where vessels berth and the U.S Shipping Act of 1984 precludes the Port from benefiting one marine terminal over another. Even if this were possible, the result would be that the Outer Harbor would receive all the newer UCLV ships that contribute lower emissions, while the Inner Harbor would be receiving the older vessels. As explained in the EA, the Inner Turning Basin was designed for a PPX Gen I vessel in 1998, which only required Tier I controls. See IFR/EA Section 2.1.5. This would subject the West Oakland communities around the Inner Harbor, where the Port has 11 container berths, to vessels predominately equipped with only Tier I controls, while the ULCVs with Tier III would effectively not be able to utilize that Harbor. It is agreed that ULCVs contribute less emission impacts per TEU, therefore, even if growth remained flat, per TEU, the Inner Harbor communities would be subjected to more air quality impacts than subjected to now, as only these older Tier I vessels could utilize the Inner Harbor, while the larger, newer vessels would be directed to the Outer Harbor. By modifying only the Outer Harbor, the result would likely be that those communities adjacent to the Inner Harbor would be left out of the localized air quality benefits stemming from more efficient ship traffic. See GHG analysis in Section 6.14. It is for these reasons, and others explained in the IFR/EA, that an Outer Harbor only alternative cannot be the comprehensive benefit plan. | 2.1.5: Existing Fleet, 6.14: Greenhouse Gases |
| BCDC - 4 | See BCDC – 3 response. | NA |
| BCDC - 5 | See BCDC – 3 response. | NA |

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| BCDC - 6 | In re-releasing the Draft IFR/EA, USACE considered your comments and preference for combining the NEPA and CEQA documents. However, the Draft EIR was released in October of 2023 and delaying the NEPA document to correspond with CEQA would have jeopardized USACE's ability to timely request authorization for the Project. While USACE and the Port have actively coordinated to ensure alignment between the NEPA and CEQA documents, these documents were too far along at the time of re-release to integrate them. Such integration would be time consuming, require significant public resources from both USACE and the Port, and delay any request for authorization, as explained previously. Therefore, USACE and the Port were unable to integrate the NEPA and CEQA document. In October 2023, the Port published its Draft EIR and USACE has reviewed it for consistency. | NA |
| BCDC - 7 | BCDC is incorrect in that the IFR/EA shows that increases in efficiency would result in up to 43 ships calling at the Port. The EA utilizes BCDC's own 2019-2050 Bay Area Seaport Forecast (2020 Tioga Report) which found that if the entire Port were required to limit itself to smaller, 14,000 TEU capacity, vessels, which are the largest ship that can utilize the Inner Turning Basin, then 43 vessel calls would be required to move the amount of cargo expected in a high growth scenario. This could be accommodated by the Port; however, it would be much less efficient than moving the same amount of cargo on more ULCVs which can move more cargo on less vessels. Thus, it is the exact opposite of what BCDC's comment suggests. The efficiency gains from the Project will allow for less vessel calls, not more. See Appendix C of the IFR/EA and Draft EIR, Section 3.1, Table 3.1-1 for how the vessel calls by vessel type are expected to change in the future based on a future with project and a future without. This Project will not encourage the type of investments to cargo handling capacity BCDC suggests. Both growth and the international fleet's movement toward ULCVs are independent of this Project. In a future without the project, the Port would still expect to service 257 PPX Gen IV vessel calls in 2050. See GC-1 how growth is independent from this Project. Regardless of vessel size, the same amount of cargo would need to be moved, resulting in the same level of landside emissions.<br><br>Evaluations of potential increases in emissions from slower moving vessels would not change the conclusion that the project results in less emission related impacts than a future without the project. This is because all vessels, regardless of size, slow down in these channels. Further, smaller, older vessels, produce more emissions impacts per TEU than larger, newer vessels. Greenhouse gas emissions may be different as engine speeds change, though the engine speed is not decreased to the same extent as in open water when entering a channel since the drag on the vessel as it passes through a confined channel is greater. Vessel emissions are also dependent on the specific hull geometry of the vessel, and engine speed must therefore be higher to go the same speed in a confined channel due to this increased drag compared to if the vessel was not in a confined channel and water could | Appendix C: Economics, 6.14: Greenhouse Gases, Appendix A04c: Greenhouse Gas Analysis |

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| | flow around the vessel without constraint. However, current modeling capabilities by USACE and the EPA Port Emissions Guidance, which was used to perform the emissions inventory do not include vessel hull geometry, so the analysis provided a sufficient analysis for quantifying emissions as was possible. If specific changes could be made to better the total greenhouse gas emissions from containerships as they passed through a channel, this would be applied across all vessels for all alternatives. This would result in the same relative difference in emissions when comparing alternatives and would therefore not change the outcome of the effects analysis for greenhouse gas emissions, as emissions from any chosen alternative would still be less than the no-action alternative. USACE considered how there may be higher engine loads on the tug while moving larger vessels than smaller ones, with less time spent running at the higher load and more time at idle as compared to current conditions where tugs are helping maneuver smaller vessels more frequently under lower engine loads. To ensure the worst-case scenario was modeled, the same engine load was used for all tugs no matter which vessel type they are maneuvering. This was incorporated into the tables in Section 6.14, Greenhouse Gas Emissions. Additionally, Appendix A04c includes the changes due to how the emissions of the tugs pass through the summary tables.<br>BCDC does not explain why there would be an increase in diesel equipment emissions associated with moving goods off the vessels due to slower vessel movement. USACE does not agree that those events would be related. | |
| BCDC - 8 | These numbers were developed to conceptually support the argument to use Section 204 of WRDA 1992 to authorize the beneficial use of dredged material for the Project. The volumes have changed somewhat with 454,461 cy as wetland cover and 1,712,325 cy as foundation material. The wetland cover material would provide 3 feet of cover for 94 acres. Depth of foundation material and the need for additional cover will be coordinated with the site managers when more detail is known. | 5.1: Recommended Plan Description, Table 41. |
| BCDC - 9 | The USFWS has concurred with our assessment that the Project may affect but is not likely to adversely affect the California least tern. The closest construction activity is 1.5 miles away from the colony at Alameda and it is highly unlikely that noise generated by the Project, including piledriving, would affect terns. Studies performed over 5 years during the -50ft project showed that the overwhelming majority of the colony's foraging occurs south of Alameda in the Bay Farm shallows. The Inner Harbor Turning Basin is not a preferred foraging area for the terns due to the depth and industrial nature of the site. Potential impacts to terns in the Outer Harbor are limited to those related to dredging. While the Outer Harbor is not of special importance for foraging, it is possible that an occasional tern could attempt foraging in the area. There is plenty of similar habitat throughout the Outer Harbor that could be used. Foraging at Middle Harbor is increasing due to the shallows created by the restoration efforts there. This area would not be exposed to project generated turbidity or noise. | Appendix A02: Fish and Wildlife Coordination Act |

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| BCDC - 10 | Impacts would only occur in each portion of the project area temporarily during construction of those specific features. No construction impacts would affect the entire project area for the full duration of construction. Therefore, impacts occurring in the Outer Harbor would not affect the Inner Harbor, and vice-versa. Similarly, construction activities would only occur within either the Outer Harbor or Inner Harbor in portions of the project area, not the entire area, throughout the construction period. These separable temporary impacts would occur in specific areas throughout the project footprint at various times. Dredging in sediment with elevated contaminants would be contained by silt curtains which would minimize the area affected. Some small amount of contaminated sediment could remain, but it would be very thin and would immediately begin to be covered by natural sedimentation from the water column. If for some reason a significant layer remained, it would be detected in the following years testing for O&M dredging and would be removed with appropriate measures and disposal. No cofferdams are planned at this point. In the preconstruction engineering and design phase, once we have performed detail sediment characterization, we will coordinate with the Water Board to ensure that appropriate protection measures, like the one you suggest, are in place to prevent the release of any of these contaminants to the Bay. | 6.4: Water Quality, Appendix A07: Avoidance and Minimization Measures |
| BCDC - 11 | Comments from the West Oakland Community were solicited at several of the meetings that were held to gain their input. USACE has compiled these comments, among others received, in Appendix A10. The appendix includes USACE response to the comments and where the report has been revised where relevant. The last meeting held was a virtual meeting on June 14, 2023, which was well attended by the West Oakland and Alameda communities. USACE does not currently have another community meeting scheduled, but as part of the Port of Oakland's CEQA process for their EIR, they have more opportunities for community meetings in the near future. USACE and the Port will continue to engage with the communities to discuss their concerns about truck traffic and air quality. The impacts of operations at the landfills that would be used are the responsibility of the landfill operator and should be addressed in the environmental documentation related to the permitting of those facilities. Throughput and vessel traffic are not expected to increase as result of the widening of the turning basins. See GC-1. In terms of cargo and air quality and congestion impacts, additional cargo is not anticipated from the widening of the turning basin, as the same throughput of containers is anticipated, and therefore no change to the Port's operations is included in any project alternative. As the greenhouse gas emissions analysis shows, it is anticipated that the Project will result in less greenhouse gas emissions over the project lifetime compared to the no-action alternative. Criteria air pollutant emissions are anticipated to follow a similar result as the greenhouse gas emissions analysis for decreased emissions from with action alternatives compared to the no-action alternative and would have improvements to air quality as a result. See | 6.1: Environmental Justice, 6.14.11 GHG Emissions Summary and Effect Determination |

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| | BCDC-7 for an explanation of why BCDC's perceived relationship between efficiencies and more vessels is flawed and entirely opposite of what the project will result in. | |
| BCDC - 12 | USFWS has concurred with our NLAA determination for least tern and no mitigation is required. The language in 6.6.1 of EFH will be clarified. The widening of the basins will in fact increase EFH in the Inner Harbor. USACE recognizes that the habitat will receive frequent disturbance and will not have the same value as undisturbed bay bottom. However, the area will be of more value to aquatic species than the upland infrastructure and riprap that it is replacing. | 6.6.1: Essential Fish Habitat |
| BCDC - 13 | USACE looks forward to discussions with BCDC regarding the bulkhead as well.<br><br>Descriptions and analysis of the Project and sea level rise are found at Appendix B4 and Section 7.7 of the Final IFR/EA. It was prepared in accordance with USACE guidance relevant to inland hydrology and sea level change. Please see the below guidance for how the assessment was performed:<br>• ECB 2018-14, Guidance for Incorporating Climate Change Impacts to Inland Hydrology in Civil Works Study, 19 Aug 22 (Rev 2)<br>• ER 1100-2-81, Incorporating Sea Level Change in Civil Works Program, 31 December 2019<br>• EP 1100-2-1, Procedures to Evaluate Sea Level Change: Impacts, Responses, and Adaptation, 30 June 2019 | Appendix B4: Coastal Engineering, 4.4: Key Uncertainties and Planning Decisions |
| BCDC - 14 | The entire upland portion of the project is industrial in nature and lies within private property with no access to the public due to safety and liability concerns. The primary purpose of this Project is to improve navigation. The Oakland Harbor Turning Basins Widening study is compliant with the Bay Plan Policies 1 and 2 to the maximum extent practicable and feasible with the project purpose. The study area provides public access with existing trails, parks, and bike paths. The Sea Port Plan, Port Priority Use Areas Policy 2, states that public access should only be pursued when it doesn't impair existing or future use of the area for port purposes. Further public access landside in the vicinity of the turning basins would not be compliant with the Port Priority Use Policy 2 and is infeasible. However, the USACE supports and will work with the Port to explore alternative options to public access improvement such as viewing platforms or interpretation panels outside the project's footprint. The federal authorization for this study does not include a recreational component and does not allow the USACE to expend federal funds on such efforts. | Appendix A05a: Coastal Zone Management Act Consistency Determination |
| BCDC - 15 | Comment Noted. | NA |
| BCDC - 16 | The Federal Standard is defined in 33 C.F.R. § 335.7 as "Federal standard means the dredged material disposal alternative or alternatives identified by the Corps which represent the least costly alternatives consistent with sound engineering practices and meeting the environmental standards established by the Clean Water Act Section | Appendix A03a: 404(b)(1) Analysis |

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| | 404(b)(1) evaluation process or ocean dumping criteria." USACE maintains that this applies to all federal dredging. | |
| BCDC - 17 | USACE and the Port of Oakland has engaged with the community as it pertains to NEPA requirements. Section 6.1 of the IFR/EA describes the USACE Environmental Justice efforts to consult with the community and local stakeholders. In conducting the environmental justice analysis, the project team held a series of meetings, inviting the local West Oakland communities to discuss the Project and obtain their input. USACE and the Port held community stakeholder engagement meetings in August 2021, and January 2022.<br><br>In addition, the team presented to the Prescott and Acorn neighborhood councils and held Q&A in March and April 2022. The EPA hosted teleconference with the West Oakland Environmental Indicators Project Group and USACE in May 2022. A hybrid in-person and virtual meeting focused on the environmental justice community was held in West Oakland in February 2023; additionally, the previously mentioned virtual meetings focused on the EJ community were held in May and June 2023. Comments from the West Oakland Community were solicited at several of the meetings that were held to gain their input. USACE has compiled these comments, among others received, in Appendix A10. The appendix includes USACE response to the comments and where the report has been revised where relevant.<br><br>The last meeting held was a virtual meeting on June 14, 2023, which was well attended by the West Oakland and Alameda communities. We do not currently have another community meeting scheduled. The Port will continue to engage with the communities to discuss their concerns relating to the Draft EIR which was released in October 2023. See response to comment BCDC-11.<br><br>In these meetings, USACE has provided the West Oakland Community explanations in nontechnical terms of how the dredged sediment would be handled, placed and beneficially used.<br><br>As explained in GC-1, this Project will not induce growth. Therefore, the Project will not impact Port Operations or increase ship traffic. In fact, the 2020 Tioga Report explains that this project would allow for reduced ship traffic, with less, but larger vessels, to move the same amount of cargo to the Port. | 6.1: Environmental Justice |

# Bay Planning Coalition Comments

Bay Planning Coalition



**June 14, 2023**

San Francisco District, US Army Corps of Engineers
ATTN: Mr. Eric Jolliffe, Environmental Manager
450 Golden Gate Avenue, 4th Floor
San Francisco, CA 94102-3406

**Subject:** Oakland Harbor Turning Basins Widening

Dear Mr. Jolliffe,

The Bay Planning Coalition (BPC) writes to express our support of the Oakland Harbor Turning Basins Widening study (project).

BPC is a membership-based policy advocacy organization with over 150 members across a broad range of industries, public agencies, and organizations who collectively advocate for strong economic growth while protecting the environmental sustainability of the San Francisco Bay Region.

Aligning with our organization's mission, the Harbor Turning Basin Widening project represents an opportunity to further enhance efficiency and operational capabilities at the Port of Oakland, which will assist in our region's growth without significant impacts to our waterways and communities. Moreover, with improved navigational access for larger vessels, which already berth at the Port, the widening of the Harbor will allow for smoother operations to accommodate ever-increasing consumer demands and further reduce environmental impacts to our communities.

The benefits of this project extend beyond the Harbor itself. A more efficient and effective Port of Oakland translates into enhanced economic opportunities for the local community and the entire Bay Area. A widened turning basin will stimulate job growth, attract new businesses, and contribute to the progress of our nation's economy through sustainable development. By optimizing operations, the project will contribute to a greener future by reducing terminal congestion and minimizing emissions from stagnant vessels. **BPC-1** **BPC-2**

As the rereleased draft integrated feasibility report and environmental assessment reflect, the project alternatives would not result in significant effects on neighboring communities or environmental factors such as water and air quality. **BPC-3**

In summary, the Bay Planning Coalition believes that the widening of the Port's turning basins will support a more prosperous and sustainable future for the Bay Area and ensure our nation's competitiveness in the global economy.

Sincerely,

*John A. Coleman*
Chief Executive Officer
(510) 768 - 8312

3527 MT. DIABLO BLVD., LAFAYETTE, CA 94549-3815 | (510) 768-8310
www.bayplanningcoalition.org

## Responses to Comments

| Bay Planning Coalition (BPC) | | |
|---|---|---|
| **Comment Number** | **Response** | **Location in IFR** |
| BPC-1 | Comment noted. | NA |
| BPC-2 | Thank you for your comment. | NA |
| BPC-3 | Comment noted. | NA |

# U.S. Environmental Protection Agency Comments

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

June 16, 2023

Eric Jolliffe
Environmental Manager
United States Army Corps of Engineers, San Francisco District
450 Golden Gate Ave, 4th Floor
San Francisco, California 94102

Subject: EPA Comments on the Oakland Harbor Turning Basins Widening Navigation Study, Revised Draft Integrated Feasibility Report/Revised Draft Environmental Assessment, Alameda County, California

Dear Eric Jolliffe:

The U.S. Environmental Protection Agency has reviewed the above-referenced document. The Revised Draft Integrated Feasibility Report/Revised Draft Environmental Assessment includes updates to the previously released analysis of the U.S. Army Corps of Engineers proposal to widen the federal navigation channels of Oakland Harbor turning basins to enable larger containerships to more efficiently enter the Port. The Revised Draft EA identifies Alternative D-2–Inner and Outer Harbor modifications using electric dredges and beneficial placement as the Recommended Plan. Our review is pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 15001508), and our NEPA review authority under Section 309 of the Clean Air Act.

The EPA provided recommendations following our agency review of the prior version of the publicly released Draft EA on February 12, 2022 (attached). We offer the following recommendations (described in further detail in the attachment) for consideration as the environmental analysis proceeds, and to assist USACE in determining if a draft Finding of No Significant Impact is supported, or if a supplemental Environmental Assessment or Environmental Impact Statement is necessary.

*Meaningful Public Engagement through Coordinated Analysis and Commenting Periods* **EPA-1**
Per interagency coordination to date, USACE has declined multiple requests to synchronize the timing of the environmental review and public commenting periods for the NEPA analysis and the pending California Environmental Quality Act analysis, stating that logistical and funding deadline considerations limit USACE ability to do so. However, since the publication of the prior Draft EA in February 2022, EPA is aware of two guidance documents prepared by USACE providing additional direction in cases where USACE projects may have impact to communities with environmental justice concerns. The Implementation of Environmental Justice and the Justice40 Initiative Memorandum

(March 15, 2022)[1] and the Implementation of the Environmental Justice Strategic Plan Memorandum (December 2022)[2] offer flexibilities for the consideration of community needs to inform

decisionmaking, even extending traditional process timelines, in order to meaningfully coordinate with the public. EPA reiterates our recommendation, in consideration of available flexibilities and demonstrated community interests and concerns, that USACE jointly publish an updated Final EA/Final Environmental Impact Report, only after the Draft EIR public engagement and commenting process has allowed for thorough disclosure and coordination with public regarding potential project impacts and best practices and mitigation commitments from both the Port of Oakland and USACE. EPA continues to recommend that USACE and Port of Oakland prepare one, unified environmental analysis and basis for decision-making to reduce confusion, to provide the public with a holistic view of the project's construction and operational impacts and associated mitigation measures, and to clearly lay out what a future with and without the project would look like.

*Environmental Justice Considerations, Operational Impacts and Cumulative Impacts* **EPA-2**

In our February 2022 comment letter and through various interagency meetings, EPA emphasized that West Oakland was selected by the California Air Resources Board to participate in the state's Community Air Protection Program pursuant to California Assembly Bill 617 due to high cumulative exposure burden to criteria pollutants and toxic air contaminants. We noted that the Bay Area Air Quality Management District has been working closely with community members to develop and implement an air quality and exposure reduction program to address disproportionate air pollution impacts. We underscored the importance of fully analyzing and addressing both construction and operational impacts to prevent further harm to heavily burdened communities.

While the Revised Draft EA includes additional information describing market forces and states a lack of causality between the project and future cargo throughput, the analysis is still lacking a robust consideration of how increased container movement efficiencies would influence the timing, scope, and location of anticipated port and freight throughput operations, and also impact local and regional air quality if not managed with adequate "landside" operational commitments to complement vessel call efficiencies. EPA appreciates the description of some measures anticipated for more efficient future port operations; however, it is uncertain whether those measures will be implemented as currently contemplated. We reiterate the request to update the environmental analysis to describe operational impacts from increased vessel call efficiency and more fully describe potential landside measures and commitments to accommodate efficiencies. Identifying all available construction and operational emissions reduction strategies, and committing to the reduction of emissions from construction and widening activities, as well as from changes to port operations, is critical for protecting the health of the neighboring impacted Oakland communities and the region. Further, given that the Inner Harbor widening results in greater impacts across multiple resources, the EPA also strongly recommends USACE continue to consider an Outer Harbor Only Alternative.

[1] https://api.army.mil/e2/c/downloads/2022/03/22/6ab6eb44/final-interim-implementation-guidance-on-environmentaljustice-1.pdf

[2] https://planning.erdc.dren.mil/toolbox/library/MemosandLetters/ImplementationInterimEnvironmentalJusticeStrategicPlan_16Dec2022.pdf

EPA believes that fully analyzing and addressing all potential construction and operational impacts in consultation with affected communities can help achieve greater consistency with the March 2022 EJ guidance's direction to consider EJ and disproportionate impacts to disadvantaged communities throughout all phases of project planning and decision-making in Civil Works projects and go beyond "doing no harm" by putting disadvantaged communities at the forefront and center of studies. Further, the EPA reiterates our recommendation for a robust cumulative impacts analysis, as well as a clearer understanding of the impacts of other planned actions at the Port and in the City of Oakland and how those actions, when considered with the impacts of the proposed project, may affect the adjacent community.

The EPA appreciates the opportunity to review this Revised Draft EA. When the Final EA is released for public review, please notify Connell Dunning, the lead reviewer for this project, and make an



electronic copy available. If you have any questions, please contact me at (415) 942-3308, or contact Connell Dunning, NEPA Transportation Lead, at 415-947-4161 or dunning.connell@epa.gov.

Sincerely,

Janice Chan
Acting Manager, Environmental Review Branch

Enclosures: EPA Detailed Comments on the Revised Draft EA
EPA Comment Letter the Oakland Harbor Turning Basins Widening Draft EA (February 14, 2022)

Cc via email: Bryan Brandes, Port of Oakland
Michael Murphy, Bay Area Air Quality Management District
Stanley Armstrong, California Air Resources Board
Brenda Goeden, San Francisco Bay Conservation and Development Commission
Kevin Lunde, State Water Quality Control Board

## NEPA and CEQA Synchronization EPA-3

As noted in EPA's comment letter to Unites States Army Corps of Engineers (USACE) following our review of the prior Draft EA (February 12, 2022, attached), and as shared with USACE during follow up coordination meetings, the EPA continues to believe that the public would be better served, and less confused, if the Environmental Assessment prepared by USACE to comply with the National Environmental Policy Act, and the Environmental Impact Report to be prepared by the Port of Oakland to comply with the California Environmental Quality Act, were jointly published, under one cover or at least during the same commenting timeframe.

By choosing to synchronize the release of environmental analysis documents, the public would understand the complete picture of project impacts, USACE and Port of Oakland respective design commitments and mitigation, and future actions from each action agency related to the project. The current environmental review process, with separate commenting timeframes and documents not provided concurrently, affords no visibility to the public about the "landside" project impacts and commitments the Port of Oakland will identify to complement the increased efficiency of vessel calls.

The USACE assertion that alignment of the releases of a Draft EA and Draft EIR with an overlapping comment period creates an "extra burden" is misleading, as the opposite is true - combined documents reduce the overall document review burden to the public and it is actually a burden to the public to have no visibility to all potential impacts and necessary mitigation measures and landside port operations efficiencies the Port of Oakland may be including in the pending Draft Environmental Impact Report. As noted previously, synchronized commenting periods are recommended by State of California and the Council on Environmental Quality[3].

Further, the EPA recognizes the recent completion of the USACE Interim Environmental Justice Strategic Plan: Community Outreach & Engagement (December 2022)[4] Objective 6, page 9 which states, "*Exceptions to the 3x3x3 policy (completion of feasibility studies within three years and $3 million federal cost) may be needed for those studies that require substantial outreach and engagement with disadvantaged or underserved communities. Similarly, USACE study teams will consider requesting NEPA timeframe extensions to better facilitate meaningful and targeted engagement with disadvantaged communities.*"

> ***Recommendation:*** EPA requests that USACE consider this letter as a formal request to institute a NEPA timeframe process extension to better facilitate meaningful and targeted engagement with the disadvantaged communities that would be most impacted by the widening of the turning basins, as noted as a possible option in the USACE Interim Environmental Justice Strategic Plan.

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[3] NEPA and CEQA: Integrating Federal and State Environmental Reviews
https://opr.ca.gov/docs/NEPA_CEQA_Handbook_Feb2014.pdf

[4] https://planning.erdc.dren.mil/toolbox/library/MemosandLetters/ImplementationInterimEnvironmentalJusticeStrategicPlan_16Dec2022.pdf

We recommend that USACE synchronize the remainder of the NEPA and CEQA environmental review processes by releasing the final environmental document *after* an opportunity for the public to review the pending Draft EIR, and optimally in a joint release, with a concurrent public commenting review period, with the Port of Oakland Final EIR. Consider extending the commenting period for this Revised Draft EA if affected community members are unable to meaningfully review and comment on the document within the timeframe currently prescribed.

**Community Impacts and Environmental Justice** **EPA-4**

Executive Order 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All* (April 21, 2023) directs Federal agencies to strengthen their commitment to deliver environmental justice for all communities. While we understand that this Executive Order was published after USACE finished compiling the Revised Draft EA, we note that the goals and objectives of this EO will guide future USACE direction moving forward and preparation of the Final EA and decisionmaking. EO 14096 notes that communities with environmental justice concerns "face entrenched disparities that are often the legacy of racial discrimination and segregation, redlining, exclusionary zoning, and other discriminatory land use decisions or patterns." It further states that an ambitious approach to environmental justice must be taken, one that is "informed by scientific research, high-quality data, and meaningful Federal engagement with communities with environmental justice concerns that uses the tools available to the Federal Government…" EO 14906 provides various directions to Federal agencies, including:

- *Providing opportunities for the meaningful engagement of persons and communities with environmental justice concerns who are potentially affected by Federal activities, including by:*
    - *Providing timely opportunities for members of the public to share information or concerns and participate in decision-making processes*
    - *Fully considering public input provided as part of decision-making processes*
    - *Seeking out and encouraging the involvement of communities with environmental justice concerns that are potentially affected by Federal activities*
- *Providing technical assistance tools and resources to assist in facilitating meaningful and informed public participation*
- *Carrying out environmental reviews under the NEPA consistent with the statute and its implementing regulations and through the exercise of the agency's expertise and technical judgement, in a manner that:*
    - *Analyzes direct, indirect, and cumulative effects of Federal actions on communities with environmental justice concerns*
    - *Considers best available science and information on any disparate health effects arising from exposure to pollution and other environmental hazards*
    - *Provides opportunities for early and meaningful involvement in the environmental review process by communities with environmental justice concerns potentially affected by a proposed action.*

In our February 14, 2022 Draft EA comment letter (attached) and through various interagency meetings, EPA expressed concerns about the proposed project's potential to impact communities with environmental justice concerns, particularly vulnerable residents of West Oakland that face existing disproportionate environmental and health impacts, including from activities associated with port

operations. We noted that, due to existing high cumulative exposure burden of air toxics and criteria pollutants, the West Oakland community was selected to participate in the first year of California's Clean Air Protection Program under California Assembly Bill 617. Residents have been working extensively over the past years in partnership with the Bay Area Air Quality Management District (BAAQMD) and a diverse array of stakeholders, including the Port of Oakland, to develop and implement a Community Air Action Plan to address existing pollution from major sources, including the Port. Additionally, we noted that community members have been highly concerned about air quality in this area and have been very interested in learning about and meaningfully informing any planned projects that could adversely affect air quality. We made various recommendations to strengthen the project's community engagement approach and environmental justice analysis, including:

- Maintaining community engagement throughout the planning process to ensure ample time to incorporate community feedback into the project and commit ot robust outreach approaches;
- Hosting additional community meetings to ensure potentially impacted residents understand the proposed project and have the opportunity to inform the project's design and NEPA analysis;
- Ensuring that all project-related information and updates are conveyed using plain language so that community members can readily understand the project and its potential impacts;
- Engaging with the West Oakland AB 617 Steering Committee;
- Ensuring that the project's environmental justice analysis captures all project-related impacts, including transporting sediment through communities to placement sites (e.g., landfills) and from port operational activities;
- Performing a robust cumulative impacts assessment; and
- Using the public engagement plan for the prior Title VI Complaint that was established as a part of the information resolution to inform this project's outreach approach.

We appreciate USACE efforts to seek EPA's feedback on some aspects of the outreach approach for the publication of the Revised Draft EA. We also appreciate efforts that the USACE undertook to improve the project's outreach approach, including holding additional public meetings, providing translations of outreach materials, and providing additional details on the project's anticipated growth impacts; however, we continue to have concerns regarding the extent to which communities with environmental justice concerns have been *meaningfully* engaged and offer additional recommendations for USACE to implement as the environmental process proceeds. Further, the Revised Draft EA's lack of consideration of potential impacts to heavily burdened communities, particularly impacts from port operations, is not alignment with EO 14096 and USACE recent guidance and strategic plan on Environmental Justice.

***Recommendations:*** In addition to comments provided in our February 14, 2022 comment letter that have not been fully addressed, and prior to release of the Final EA, we recommend the USACE:

- Provide affected community members with opportunities to engage in more frequent, two-way dialogue with the USACE and the Port regarding the project, its potential impacts, and mitigation opportunities.
    - Consider providing technical assistance to affected community members to ensure they have resources needed to understand the NEPA process and the Revised Draft EA.

- Ensure that insights from communities with environmental justice concerns are thoughtfully considered and incorporated in the NEPA document and are used to inform decision-making to the fullest extent feasible.
- Demonstrate the proposed project's consistency with the community emissions and exposure reduction strategy under the West Oakland AB 617 effort.

- Consider forming a Community Advisory Group to provide guidance to the USACE and the Port throughout the NEPA process and project implementation.
- Fully disclose and analyze impacts to port operations as further outlined below.

**Operational Impacts** **EPA-5**

The Revised Draft EA includes a robust discussion of global supply and demand, and concludes that the project itself is not inducing additional cargo throughput, rather it is accommodating throughput that would arrive anyway. EPA disagrees with the USACE assertion in the Response to Comments section of the Revised Draft EA, and throughout the Revised Draft EA, that the Recommended Plan would not be expected to cause reasonably foreseeable operational changes in container movement timing, scope, or location (Appendix A10a, page 7). The Draft EA further states, "The Recommended Plan is not expected to have reasonably foreseeable impacts on landside Port operations, such as the transport and movement of freight through the communities around the Port" and "The Recommended Plan does not control or propose to modify or change how independent private marine terminal operators manage the receipt and delivery of containers."

While the Response to Comments Appendix A10a notes that the project is not expected to impact port operations, we note that the 2020 Tioga Report cited by the USACE appears to suggest otherwise. For example, the 2020 Tioga Report indicates that the proposed project would remove a vessel size "TEU restriction" currently faced by the port (page 125). The 2020 Tioga Report also states that larger container vessels tend to cause cargo "surges" that can "stress terminal capacity," noting that "megaship deployment may thus concentrate cargo that was formerly handled on different days, or different vessels, at different terminals, in a single call at one terminal" (page 66). The report further notes that larger vessels require additional port equipment, including additional larger cranes (page 59). Regardless of total volume of TEU being affected by the project, the same volume of TEU arriving on fewer vessels has a direct impact on how cargo must be handled, processed, and transported. As with the analysis of greenhouse gas emissions across the 50-year project lifetime, EPA recommends that USACE similarly address the impacts across all other resource areas, both in the turning basins and at the port, into operational years, and up to the 50-year project lifetime.

The lack of disclosure/analysis of the reasonably foreseeable surges, pulses, and differing cadence of cargo throughput limits any consideration of mitigation measures, best practices, or berth offloading standard protocols on the part of the Port to limit disruption and manage efficient flow of goods through adjacent communities. The community would value disclosure of how the Port of Oakland will provide leadership to the independent marine terminal operators, for the management of the receipt and delivery of containers that this project is directly increasing the efficient delivery of. For example, will the port/tenants implement minimum vessel offloading standards or commitments in order to reduce a

potential unmanaged surge, "pulse" and ultimate inefficient, and impactful to communities, movement of cargo leaving the port under various scenarios?

***Recommendations:***

- EPA continues to recommend that USACE provide a robust discussion of potential operations impacts, and measures to reduce adverse impacts. EPA reiterates the need to carefully analyze and address any additional impacts port-adjacent communities could face from both the project's construction *and* operational phases. Ensure that any surges in cargo and associated impacts (e.g., cargo handling activity, truck activity, rail activity, etc.) are thoroughly analyzed and identify appropriate mitigation measures in consultation with affected community members. For example, consider installing air monitors with publicly accessible data to assist in evaluating air quality during construction/operation and use air quality data to inform potential mitigation measures. This is particularly important to evaluate in the Final EA given that the USACE is currently pursuing an Environmental Assessment/Finding of No Significant Impacts (FONSI).
- In the Final EA, include an analysis of emissions impacts from vessel operations from the Proposed Action compared to the No Action alternative, including a robust discussion of near-port emissions impacts to the surrounding community.

**Air Quality**

*National Ambient Air Quality Standards* **EPA-6**

The Revised Draft EA accurately states that the project area is located within the San Francisco Bay Area Air basin, which faces some of the worst air quality in the country. The SFAAB is designated as nonattainment for the national 8-hour ozone and 24-hour PM−2.5 National Ambient Air Quality Standards and was redesignated to attainment/maintenance for CO effective June 1, 1998 (63 FR 15305). The Revised Draft EA also details how the proposed project alternatives meet Clean Air Act General Conformity requirements for the NAAQS and their relevant precursors. As per 40 CFR 93.153(b)(1), the relevant de minimis levels for both ozone precursors (NOx and VOC) and PM2.5 (direct and precursor emissions, e.g. NOX, SO2, VOC, and ammonia) in the SFAAB is 100 tons per year.

***Recommendation:*** The EPA recommends a revision to any discussion of relevant criteria pollutants for General Conformity to explicitly list that precursor emissions are considered for the PM2.5 NAAQS as well.

In Section 6.13, the Revised Draft EA detailed how projected emissions were evaluated by the General Conformity Rule. This was achieved by conducting an applicability analysis, comparing project estimated annual emissions to established de minimis levels, and the prior 2021 Draft EA found them to be below these thresholds. However, the Revised Draft EA edited discussion of how the average daily emissions of NOx would exceed BAAQMD's local threshold of 54 pounds of NOx per day. As previously stated in the 2021 Draft EA: **EPA-7**

*While the General Conformity criteria is used as the significance threshold under NEPA, the Port's air quality analysis performed for this study did find that for all action alternatives, average daily*

*emissions of NOx over the duration of construction for the Alternative, would exceed BAAQMD's local threshold of 54 pounds of NOx per day. In order to minimize exceedance of this local threshold, all action alternatives would require construction contractors to equip all heavyduty off-road construction equipment that require greater than 25 horsepower, with engines that meet the Tier 4 Final (Tier 4F) standards as certified by CARB and EPA.*

***Recommendations:***

- To ensure a robust and transparent reporting of the air quality analysis, we recommend reverting to the language provided in the 2021 Draft EA that described the full details of the project's impact on local air quality standards for NOx emissions and reporting data in the same manner for other relevant pollutants.
- Similar to the commitment for heavy-duty off-road construction equipment, the EPA recommends, a commitment to – at a minimum – using the engine tier standards modeled for harbor craft emissions for the proposed action and a commitment to using higher engine tier standards, if available, that meet the standards outlined in California's recent amended Harbor Craft Regulation, section 2299.5, title 13, division 3, chapter 5.1 and section 93118.5, title 17, chapter 1, subchapter 7.5, of the California Code of Regulations. As the estimates for all project alternatives listed throughout Section 6.14 list marine engine activity as the highest contributor to overall annual emissions, higher tier engines for these could have a substantial benefit on air quality and associated concerns.

Furthermore, in Section 6.13 of the Revised Draft EA, the potential impact that project-related **EPA-8** construction activity would have on local air quality is detailed in relation to fugitive dust emissions, and the Revised Draft EA indicates that the usage of BAAQMD recommended Basic Control Mitigation Measures (BAAQMD 2017) would be adequate to control impacts from construction fugitive dust.

***Recommendations:***

- The EPA appreciates the consideration of these measures in all project alternatives and recommends USACE commits to using these measures in the selected alternative and also considers the usage of all viable mitigation measures listed by BAAQMD for projects with construction emissions above BAAQMD air quality thresholds of significance.

**Truck Management/Enforcement**

As highlighted in EPA's previous Draft EA Comment letter, truck traffic is a major concern for community members due to its localized impacts on community health and safety. According to the Response to Comments, the Truck Management Plan was developed by the Port and City of Oakland and is enforced by the Oakland Police Department. Although the Truck Management Plan does not include specific construction truck haul route for this Recommended Plan, the USACE indicates in the Response to Comments that the Truck Management Plan has already been designed to limit trucks driving or parking by residential areas and other sensitive land uses, and that the construction contractor would be required to prepare and implement a traffic management plan as part of the project construction.

EPA appreciates that the Recommended Plan includes the requirement to use EPA Tier 4 off-road engines to minimize emissions, among other requirements, during construction, and we appreciate that the Port of Oakland has adopted an electric infrastructure plan for the maritime waterfront areas of Oakland and supports the transition to zero emission drayage truck commercialization efforts as part of the 2020 and Beyond Seaport Air Quality Plan; however, the analysis would benefit from more details about the current truck management "setting", or baseline regarding how effective the current truck management program is, more details regarding the management of trucks during construction, and an analysis of truck traffic changes due to operational shifts and increased throughput, as previously requested in our comments on the Draft EA (attached). **EPA-9**

***Recommendations:***

- In the final environmental document, provide updated information regarding best practices and requirements that the construction contractor will commit to in developing a construction traffic management plan. Commit to including in the future applicable Request for Proposals, a requirement for the contractor and construction team to coordinate with affected community members to develop a process to request community input into the preparing a traffic plan.
- In the Final EA, provide information about the current baseline "setting" of operational truck conflicts with the adjacent community and describe how USACE and the Port would monitor and enforce construction truck haul routes and operational cargo throughput as part of the Truck Management Plan beyond depending upon the Oakland Police Department.
- Identify electric support equipment commitments applicable to the project, as well as what specific measures will be taken to minimize tailpipe emission from truck activity in future, operational years.

**Health Impacts Analysis** **EPA-10**

While we appreciate the addition of a health risk assessment, we note that the timeframe analyzed for the assessment was limited to construction timeframe only. This is in contrast to the analysis of GHG emissions that extended the analysis and disclosure throughout project operations, and included estimates regarding operations and maintenance dredging. It is not clear why the analysis of health impacts was not similarly analyzed using available data and estimates.

***Recommendations:***

- In the Final EA, EPA recommends revising the health risk assessment to evaluate the potential impacts associated with emissions of air toxics related to the channel widening and future operation years, including vessel emissions and maintenance dredging. The future condition analysis for air toxics (and NAAQS) should extend beyond just construction years to also include the entire life of the project.
- Revise the health risk assessment to include the changes to the location and timing of the processing of cargo as a result of throughput "surges" (Tioga report, page 33), changes to the number of TEUs that will continue to increase, as described in the Revised Draft EA, (along with associated additional truck/locomotive landside emissions impacts).

- Use modeling results to help determine effects on landside sensitive receptors such as potential EJ areas located along all road/rail corridors transporting cargo to determine any areas of localized higher concentrations and include results in the Final EA.

In the Principles and Requirements for Federal Investments in Water Resources, March 2013 ,which is **EPA-11** part of the basis for the national economic development plan and ASA(CW) recommendation, the document states "Agencies should continuously seek to update data and to modernize tools, models, and analytical techniques and not simply rely upon those used in the past because they are familiar." (Pg 7 Chapter II Section B Best Available Science and Commensurate Level of Detail). EPA believes that the advantages and costs of reducing risk to the public was not fully considered in the development of the recommendation. EPA has developed the BenMAP-CEt software that estimates the health impacts and economic value of changes in air quality https://www.epa.gov/benmapProven. EPA believes the health impacts and economic value of using electric dredges from BENMAP would be sufficient to make it a required part of the USACE Recommended Plan and proposed action, rather than a "betterment" deferred to the Port of Oakland to implement with no federal cost share and no enforceability.

***Recommendations:***

- For the construction Health Risk Assessment results that show Alameda residents would be exposed to risks above BAAQMD thresholds, EPA recommends that USACE revise the HRA by confirming the physical locations of sensitive receptors (rather than identifying the location of Maximum Exposed Individual Resident from the model) and require electric dredging to reduce residential exposure below the threshold. (See Figure 9 and Figure 11 of Appendix A4b.)
- To further minimize exceedances of local thresholds, the EPA recommends a stronger commitment to the usage of electric dredges, by USACE, as a component of the proposed action and Recommend Plan, Alternative D-2. To this end, we recommend, through any means feasible, an enforceable commitment to the usage of electric dredges throughout the duration of the project.

**Climate Change and GHG Analysis** **EPA-12**

On January 9, 2023, Council on Environmental Quality (CEQ) published interim guidance to assist federal agencies in assessing and disclosing climate change impacts during environmental reviews. CEQ developed this guidance in response to EO 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis. CEQ indicated that agencies should use this interim guidance to inform the NEPA review for all new proposed actions and may use it for evaluations in process, as agencies deem appropriate, such as informing the consideration of alternatives or helping address comments raised through the public comment process. EPA appreciates that USACE included a GHG analysis in the Revised Draft EA and we encourage USACE to continue to ensure robust consideration of potential climate impacts, mitigation, and adaptation issues as the project planning proceeds.

The Revised Draft EA reports that there will be increased idling hours due to smaller vessels waiting for the larger Post-Panamax vessels to exit and provide space to dock. However, the Revised Draft EA also notes that there will be decreased idling, due to decreasing overall number of vessel calls at the port. The

Revised Draft EA concludes that there is an overall net emission-reduction benefit for operations when considering idling. The Revised Draft EA further notes that even with a massive increase in annual emissions from operational maintenance dredging for the greater overall footprint to be dredged for both Inner and outer Harbor, the Recommended Plan would result in the fewest operational air quality impacts because of reduced idling. The assumptions behind idling estimates are not clear.

***Recommendations:***

Provide a more robust discussion in the final environmental analysis about the future of idling anticipated as a result of the project. Provide justification behind the conclusion that total idling hours overall will be the least with Alternative D-2. Confirm that idling assumptions fully considered increased idling required to accommodate the operational and logistical requirements of the largest vessels needs for maneuvering safely, especially in the Inner Harbor.

EPA commends USACE for analyzing operational emissions in order to best understand and disclose GHG emissions anticipated as a result of the project. Limiting the analysis of future operations impacts to only the GHG emissions, versus emissions from criteria pollutant and air toxics, limits a full understanding of the potential indirect and cumulative air quality impacts. **EPA-13**

***Recommendations:***

- EPA recommends that USACE also include in the Final EA the associated criteria pollutant and air toxic emissions both for idling and to the 3-mile state jurisdictional boundaries in an updated air quality analysis. This is important for providing additional disclosure of the impacts. Please also demonstrate that these emissions also decrease relative to the No Action Alternative.
- Consider how communities with environmental justice concerns may be disproportionately affected by, and vulnerable to, climate change and its associated impacts, including any impacts on communities' climate change resiliency or inconsistency with any existing regional or local adaptation plans. EPA recommends that input from identified communities with environmental justice concerns be incorporated into mitigation and adaptation decisions, including how consideration of GHG mitigation can reduce the proposed project's disproportionate climate impacts on these communities and produce co-benefits such as reducing air pollution.

In light of ongoing and projected regional and local climate change, it will be important for USACE to ensure consistent consideration of robust climate resilience and adaption planning in the design of the proposed project to protect the investment from the effects of climate change. Considering potential climate change impacts helps ensure that investments made today continue to function and provide benefits even in the future under different climate change scenarios. Further, climate change may exacerbate project impacts to aquatic fauna, including any federally listed threatened and endangered species, and can also impact water quality. For example, changes in temperature and precipitation patterns, sea level rise, storm surges and associated salinity intrusion, could have an impact on the habitat, lifecycle and migratory behavior of aquatic species. Construction of the proposed project and dredging activities could then further worsen these impacts already projected to be exacerbated by climate change. **EPA-14**

***Recommendations:***

- EPA recommends that, as the project advances, USACE specifically consider how future climate change may change the frequency and intensity of climate risks such as intensity of storms and storm surges in the region. EPA also recommends USACE confirm in the Final EA how climate resiliency measures have been considered in the design of the proposed project to address these climate risks and avoid unintended impacts on nearby local communities. This, and consideration of any relevant state or local adaptation plans, would enable consideration of ongoing and projected regional and local climate impacts. When carrying out these climate assessments, EPA recommends that USACE uses latest climate change projections tailored to the project area.
- In the Final EA, confirm that climate change impacts were considered when potential impacts on aquatic wildlife and water quality from the proposed project were evaluated, and also when suitable avoidance measures, minimization, and mitigation measures were evaluated, to make sure they are suitable to address the anticipated impacts.

**EPA-15**

The Revised Draft EA indicates that the Port of Oakland Utility has 66.9 percent of its power needs from carbon free energy sources, which includes solar (8.3 percent), large hydropower (8.7 percent), and other renewable resources (49.9 percent). The Port also has internal solar and fuel cells operating daily, further increasing its overall carbon free energy use.

***Recommendation:***

EPA recommends that the Final EA also include the shore power consumed and their associated GHG emissions, which vary with vessel size class, in their indirect GHG operating emissions for each alternative. Include a discussion of mitigation measures for decreasing the carbon intensity from shore power in the final environmental document.

**Clean Water Act and Dredging Material Management** **EPA-16**

EPA has reviewed the additional analysis prepared to demonstrate compliance with Clean Water Act Section 404. We understand that due to the footprint of the dredging proposed in the Inner Harbor Turning Basin there is now a need for in-water fill and pile driving to install a retaining wall in the water adjacent to the Schnitzer Steel property. The CWA Section 404(b)(1) analysis concludes that dredging in the Inner Harbor is the least environmentally damaging practicable alternative due to offsetting benefits related to beneficial reuse of the dredge material. It is not clear why the alternative pertaining to solely widening the Outer Harbor, requiring no in-water fill, is not an available and practicable alternative that is less damaging. Further, we understand that compliance with Clean Water Act Section 401 is still pending.

***Recommendations:***

- EPA recommends that USACE demonstrate why a project dredging in the Outer Harbor only is not the least environmentally damaging practicable alternative if it can meet the basic project objective.
- Identify any further avoidance, minimization, and mitigation measures as the project description is further refined, particularly regarding potential impacts to CWA Section 404

resources from installation of the in-water infrastructure adjacent to areas with higher contaminant loads (i.e., Schnitzer Steel and Howard Terminal).

- Please also provide an update in the next environmental document regarding compliance with Clean Water Act Section 401 and water quality certification.

The proposed project, dredging in both the Inner and Outer Harbor, will greatly increase annual maintenance dredging volumes, and the Revised Draft EA states total volumes fall within estimates analyzed in the 2015 EA/EIR O&M dredging program through 2024. However, the project design year begins in 2030. The Revised Draft EA further states that a new multi-year EA/EIR will be prepared for coverage of the USACE San Francisco O&M dredging program for future years of 2025 – 2034; therefore, O&M dredging impacts during the project timeframes of 2030 and beyond are not analyzed and disclosed in the Revised Draft EA. **EPA-17**

EPA continues to recommend close coordination with our agency as information regarding dredged material volume is refined, and we reiterate that without initial sediment testing, USACE cannot confirm the scope and extent of contamination at depth. We appreciate the commitment in the Response to Comments (Appendix A10a, p. 13) to conduct dredging activities during agreed upon work windows, to use silt curtains in areas where sediments with elevated contaminant concentrations are anticipated, and to use clamshell buckets where technically feasible.

***Recommendations:***

- EPA recommends that USACE analyze and disclose in the final environmental document the operations and maintenance dredging impacts anticipated.
- Clearly identify in the final environmental document and decision document all the measures necessary to dredge without remaining significant impacts, to support a Finding of No Significant Impact. Consider use of electric dredge for future operational maintenance dredging. Include the commitment for conducting dredging activities during agreed upon work windows, use of silt curtains and environmental dredge buckets in areas where sediments with elevated contaminant concentrations are anticipated, and use of clamshell buckets where technically feasible as mitigation measures.
- As recommended below, clearly document the responsible party and provide documentation of the commitment for electric dredge if there will be no federal funding or federal commitment to implement this important mitigation measure.

**Cumulative Impacts**

Given the importance of cumulative impacts within an environmental justice analysis, the EPA requests additional consideration of the impacts of the proposed project when also considering reasonably foreseeable future projects in the vicinity. **EPA-18**

***Recommendations:***

Provide additional information in the final environmental document regarding other past, current, and planned activities that contribute to pollution near the project area. Confirm whether the project would result in significant adverse impacts to nearby communities when considering these past, current, and planned activities. Consider cumulative impacts of highways and other sources of pollution in the port and areas surrounding the port.

**Avoidance and Minimization Measures/Mitigation Measures**

Appendix 7 states, "To reduce the potential impacts of the project alternatives on environmental resources, the analysis assumes the following or equivalent measures would be incorporated into the project as avoidance and minimization measures." EPA supports the identification of measures to reduce environmental impacts located in one Appendix; however, it is unclear what measures are optional, what measures are a part of the proposed project, and what measures are a mitigation commitment to demonstrate that the project will have less than significant effects. Further, it is not clear who the responsible party will be for implementing each measure identified. Notably, there is no mention of the commitment for electric dredge for construction in Appendix 7, although the analysis includes multiple references indicating that intent. **EPA-19**

While the EPA is highly supportive of the use of electric dredge, Chapter 5 of the RDES states that because the USACE analysis indicated there would be no adverse impacts to air quality, the Assistant Secretary of the Army did not approve use of electric dredge to be funded through federal cost share as a project mitigation. It then states that the Port of Oakland stated in a letter to USACE in September 2022 that they "support the use of electric dredging as a betterment of the plan and acknowledging this would be at 100% non-federal cost". It is misleading to include the electric dredge as an assumption for the analysis of construction impacts within the Draft EA without identification of a firm commitment by a responsibility party to acquire and deploy electric dredge.

***Recommendations:***

- EPA requests clarification regarding the list of measures identified in Appendix 7. Indicate in the Final EA which of these measures are considered as an element of the proposed action, which actions are considered mitigation measures to reduce the project's impacts to less than significant, and which measures are best practices or betterments. Indicate the anticipate responsible party for each measure.
- EPA also recommends that USACE, in the Final EA, partner with the Port of Oakland to create a readable, clear description of the measures currently in place, or proposed to be in place, including the commitment to electric dredge, to reduce impacts to the adjacent community. Include, as an Appendix, a letter of commitment from Port of Oakland of all measures that will be the responsibility of the Port of Oakland to ensure efficient processing of cargo once vessel calls achieve maximum efficiency (electrification of drayage trucks, electrified support equipment, etc.)

**Clean Ports Program and Inflation Reduction Act**

Separate from EPA's NEPA commenting role for the turning basins widening, we note that the Clean Ports Program in the Inflation Reduction Act will provide funding for zero-emission port equipment and technology and to help ports develop climate action plans to reduce air pollutants at U.S. ports. We are encouraged by new funding opportunities to assist port facilities or nearby communities in reducing emissions and improving the environment, while increasing efficiency, and request that USACE encourage the Port of Oakland, as USACE partner for the widening project, to consider all opportunities to fund and deploy measures to reduce air quality impacts associated with port operations. **EPA-20**

## Responses to Comments

| U.S. Environmental Protection Agency (EPA) | | |
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| **Comment Number** | **Response** | **Location in IFR** |
| EPA - 1 | See response to comment EPA-3 and EPA-4. | NA |
| EPA - 2 | Without a link between the Project and cargo throughput, the analysis requested by EPA is outside the scope of the Project and would not better assist USACE or the public in evaluating the alternatives through the NEPA process. Increased vessel transit efficiencies from this Project would not result in landside container movement efficiencies or inefficiencies. Current landside operations are managed by an appointment system and a comprehensive truck plan to aid the cargo movement inside the Port. These systems are designed to enhance and support efficiencies in truck movements and reduce truck-related emissions on the community. The Project does not include plans to modify these established strategies and other landside operations because the Port's capacity is not expected to change with this Project. See Evaluation of Potential for Induced Growth Section in Section 5.7. A detailed description of landside cargo facilities can be found at Draft EIR, Section 2.3.2. This section includes a description of "Surge Cargo Movement" which already occurs at the Port, such as around Chinese New Year. Thus, on-land traffic would not change in response to implementation of this Project.<br><br>While an Outer Harbor only alternative would result in less directly water related impacts, USACE disagrees that it would result in the least impacts to Environmental Justice communities, which appears to be the major concern for EPA. The Port does not have meaningful flexibility in directing ships to either the Inner or Outer based on their size. The location of anticipated operations, port configuration and the location of terminal operators often determines which ships utilize which berths. Therefore, regardless of their size, ships are generally contractually obligated to use either the Inner or Outer berths based on their cargo. Even if it were possible to direct vessels based on size, it would result in all the newer, Tier III, plugin ready, ULCVs to be directed to the Outer Harbor, while all other, older, predominantly Tier I, vessels would be directed to the Inner Harbor, resulting in more air quality impacts to those communities as a result. See also BCDC-3/4/5. By reducing the scope of the Project to only the Outer Harbor, it would leave the Inner Harbor adjacent communities out of the localized air quality benefits expected from the Project. See GHG analysis in Section 6.14. Thus, it is important to address the vessel movement inefficiencies at both turning basins. Expected benefits from addressing those inefficiencies include reductions in marine air pollution sources that would be caused by ships idling resulting in longer transit times in absence of the Project.<br><br>Lastly, relating to the comment considering cumulative impacts, as | 5.7: Evaluation of Potential for Induced Growth, 6.14: Greenhouse Gases, 6.16: Cumulative Impacts |

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| | stated above, the project does not address landside operations because landside operations are not expected to change. The cumulative impacts for the project and alternatives are found in Section 6.16 of the IFR/EA. For cumulative impacts relating to environmental justice, the project alternatives are not expected to result in significant effects because any impacts would be localized, temporary, and would have minimization measures to reduce potentially significant effects in the future to the surrounding communities. | |
| EPA - 3 | It was never USACE's position that review of a combined draft EA/EIR would result in a greater public burden than two separate documents with separate review periods. USACE interpreted EPA's initial comment as a request to align the release of the separate Draft EA and Draft EIR documents, which would result in overlapping comment period requiring review of two separate documents. In this comment, it appears that EPA's intention was to just advocate for a combined draft EA and EIR.<br><br>USACE understands and considered EPA's preference for a combined document. However, as stated previously, combining those documents would prevent potential inclusion of the project in WRDA 24 and would require significant public resources from both agencies at this time to integrate two separate documents. USACE believes concerns regarding the possibility of differing project components has been mitigated with the close coordination between USACE and the Port. The Draft EIR does not include any additional measures not included in the IFR/EA.<br><br>Further, USACE has worked with the Port and reviewed the Draft EIR for consistency with the IFR/EA. The Draft EIR supports all the findings in the IFR/EA, especially the air quality gains from implementing the project over a future without the project. Finally, the Final IFR/EA will be released after public comment on the Draft EIR is closed.<br><br>USACE did receive an exemption to the 3x3x3 policy for this project and has utilized the additional time to provide more targeted and meaningful engagement. Section 6.1 of the IFR/EA describes the USACE Environmental Justice efforts to consult with the community and local stakeholders. In conducting the environmental justice analysis, the project team held a series of meetings, inviting the local West Oakland communities to discuss the project and obtain their input. USACE and the Port held community stakeholder engagement meetings in August 2021, and January 2022. In addition, the team presented to the Prescott and Acorn neighborhood councils and held Q&A in March and April 2022. The EPA hosted teleconference with the West Oakland Environmental Indicators Project Group and USACE in May 2022. A hybrid in-person and virtual meeting focused on the environmental justice community was held in West Oakland in February 2023; additionally, the previously mentioned virtual | 6.1: Environmental Justice |

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| | meetings focused on the EJ community were held in May and June 2023. Comments from the West Oakland Community were solicited at several of the meetings that were held to gain their input. USACE has compiled these comments, among others received, in Appendix A10. The appendix includes USACE response to the comments and where the report has been revised where relevant. The last meeting held was a virtual meeting on June 14, 2023, which was well attended by the West Oakland and Alameda communities. We do not currently have another community meeting scheduled. However, the Port will continue to engage with the communities to discuss their concerns relating to the Draft EIR, with additional public engagement opportunities being hosted in-person in October and virtual opportunities in November of 2023. | |
| EPA - 4 | See EPA-3 for a description of all the public outreach completed to date for the Project. USACE believes that the level of public engagement meets the spirit of EO 14096, despite its publication postdating the release of the draft IFR/EA. USACE has consistently sought to provide technical resources to assist with access during the NEPA process, engage with the EJ community in meaningful ways, and consider their concerns. The strategies outlined in the WOCAP are not directed to the federal government, however, the Draft EIR provides details directly explaining the Project's compliance with relevant strategies as outlined in the WOCAP. See CARB -3. USACE will consider a Community Advisory Group if the project moves forward in the next stage. | 7.1: Environmental Compliance, EOs, and Permitting Requirements |
| EPA - 5 | EPA's comment appears to misunderstand the function of the TEU vessel size restrictions as related to growth analyzed by the 2020 Tioga Report (pages 113-127). The TEU 14,000 and 25,000 caps are artificial for study purposes only. For instance, the Tioga Report explains that there are no existing ships able to accommodate up to 25,000 TEUs. The TEU 14,000 cap is meant to illustrate a future where all ships at the Port are limited to that size, which is the current maximum limit for use of the Inner Harbor Turning Basin. However, the Port, as a whole, is able to accommodate larger ships. See Section 2.1.5 of the IFR/EA. The Port already services ULCVs, they are just unable to use the Inner Harbor Turning Basin. See Section 2.1.6 of the IFR/EA. This is why USACE maintains that the project does not allow for ships that would otherwise be unable to call at the Port. What the Tioga Report shows is that a hypothetical scenario where no ULCVs were able to come to the Port, yet shows that all growth scenarios could be accommodated on smaller vessels. Therefore, the introduction of ULCVs is not growth inducing. See Section 5.7, Evaluation of Potential for Induced Growth.<br><br>The Tioga Report, pages 61-62, describes the changes that ports generally and the Port of Oakland face as larger vessels replace smaller vessels as the international fleet modernizes. This section of the report describes an existing trend and problems the Port is already addressing. The Tioga Report, page 60, shows that the Port, as of early | 2.1.5: Existing Fleet, 2.1.6: Pilot Restrictions on Large Container Vessels, 5.7: Evaluation of Potential for Induced Growth, Tioga Report |

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| | 2019 already had 15 Super Post-Panamax cranes out of a total of 29 cranes. These cranes are found at Oakland International Container Terminal, Ben E. Nutter Terminal, and TraPac Terminal. These three terminals are the ones the Tioga Report showed would be receiving the ULCVs. See page 123, Exhibit 129 and showing all large vessel sizes being supported by those three terminals. This is all evidence that these improvements are being conducted independent of the project, because they are already complete and would be required if the Terminal serviced one ULCVs or hundreds. Further, these cranes are electric at the Port, which means that additional use would not result in additional emissions. Draft EIR Section 2.3.2. ULCVs are also plugin capable and utilizing the turning basins will allow vessels to appropriately align themselves to plug in. This will allow ULCVs to be on shore power despite longer says at the Port. Therefore, the concerns of cargo transport from vessels to the Port would not result in additional operational emissions that could be analyzed. For a discussion on how the Port handles "surges" see CARB-1, EPA-2. For vessel operation emission comparisons of the Project and a future without the project please see Appendix C: Economics of the IFR/EA and Draft EIR Section 3.1.1, Table 3.1-1, show how the Project will lower overall emissions. | |
| EPA - 6 | Discussion for $PM_{2.5}$ NAAQS can be found in sections 3.13.2 and 6.14.2 of the IFR/EA, which state that precursor emissions are considered for $PM_{2.5}$. $PM_{2.5}$ is classified as marginal nonattainment with respect to the national standards and by the San Francisco Bay Area Air Basin. | 3.13.2: Existing Air Quality Conditions, 6.14.2: IHTB Expansion Direct GHG Emissions |
| EPA - 7 | Similar language for $NO_x$ as what was provided in the previous draft EA was added for the final version of the IFR/EA. A commitment for the engine tier that will be used for marine equipment is difficult to fulfill due to the uncertainty of availability compared to on-land construction equipment. The CARB Marine Harbor Craft Regulations for higher-tiered engines will continue to improve the availability of higher tiered marine equipment over time which will allow USACE to fulfill commitments for higher tiered engines. | 6.13: Air Quality |
| EPA - 8 | All alternatives would incorporate minimization measures and best management practices at construction sites for fugitive dust, as described in section 6.14 and Appendix A07. | 6.14: Greenhouse Gases, Appendix A07: Avoidance and Minimization Measures |
| EPA - 9 | See GC-1 and EPA-5 for an explanation for how the Project does not induce growth or operational shifts. The current landside operational baseline setting includes an appointment system and a comprehensive truck management plan to aid in the administration of cargo | 2.2: Future Without-Project Conditions |

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| | movement inside the Port. The Project does not include project components that modify these systems, which are designed to enhance and support efficiencies in container deliveries and pickups (e.g., truck movements). The existing baseline setting which includes terminal operators adjusting to servicing varying container volumes temporally is anticipated to continue to meet the forecasted future container vessel fleet mix and projected number of total containers (see Section 2.2). The construction contractor, as a term of the construction contract, will develop a comprehensive construction traffic control plan that includes measures to minimize the effects of project-related construction traffic on overall circulation, including traffic, transit, bicycle, and pedestrian routes, safety, and emergency access. Notably, the traffic control plan will include advance written notification to neighboring residents, businesses, and other property owners, as well as the Cities of Oakland and Alameda and key stakeholders of any substantial increases in construction traffic (e.g., ramping up of hauling activity) (see Section 3.10). The Project includes the use of electrified dredgers. See Draft EIR Section 2.3.2. | |
| EPA - 10 | The operation and maintenance emissions for criteria pollutants, air toxics and GHGs are anticipated to result in a net reduction when comparing the Recommended Action and No Action in the future years 2030, 2040, and 2050 based on the HarborSym estimates of vessel calls by vessel class in these future years. While a detailed health risk assessment was not conducted, there will be a decrease in health impacts because of the Recommended Action compared to the No Action scenario. To conduct a detailed health risk assessment that would be meaningful for local communities located near the Port of Oakland and the turning basins, additional detail regarding specific berths that vessels call would be needed to properly determine the spatial location to allocate the maneuvering and at-berth emissions as these have the most influence on local hot spots of air toxics. This information is not readily available and would require too many assumptions to provide meaningful information in a health risk assessment beyond that health impacts including cancer risks will decrease in the overall community under the Recommended Action compared to the No Action since overall air toxics, criteria pollutants and GHG emissions will decrease. There are no current plans to widen additional parts of the Port of Oakland at this time. Operations and maintenance dredging air analysis is covered in the 2015-2024 EA/EIR.<br><br>Surges are regular occurrences that are managed by the Port to prevent impacts. See CARB-1, EPA-2. The Project will not induce growth or operational changes at the Port and landside impacts along road/rail corridors are outside the scope of the Project. GC-1. | 6.14 Greenhouse Gases |
| EPA - 11 | Unfortunately, USACE is unable to cost share the electrification of dredges and is unaware of any NEPA mechanisms that would create an “enforceable commitment” as detailed by EPA. However, the Port has committed to implementing electric dredging for the entire project | Appendix E: Waivers |

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| | and a letter from them stating their commitment is included in Appendix E, Waivers. USACE has no reason to doubt this commitment and has relied upon it throughout the NEPA process.<br><br>The USACE and Port maintain that the methods employed in the preparation of the HRA are sound and no further analysis is needed. In addition, the emissions are below the de minimis levels established in the Clean Air Act. | |
| EPA - 12 | Thank you for your comment. Further clarification for how idling hours across different vessel classes contribute to emissions was incorporated into Section 6.14: Greenhouse Gases, and Appendix A04c. | 6.14: Greenhouse Gases, Appendix A04c: Greenhouse Gas Analysis |
| EPA - 13 | The air quality analysis was performed for compliance with the Clean Air Act, which includes emissions for construction and any relevant operations and maintenance emissions after the Project is built. The greenhouse gas analysis was performed for compliance with the CEQ NEPA Guidance on Consideration of Greenhouse Gas Emissions and Climate change. As these analyses have different purposes for compliance, so do their scopes, which is why the air quality analysis does not include future years during the operations and maintenance period. As criteria air pollutants and air toxics have different residence times in the atmosphere compared to greenhouse gases and are regulated differently so that the NAAQS may be adjusted over time as needed to provide sufficient air quality, an analysis showing future criteria air pollutants and air toxics emissions is not currently necessary for the future operations and maintenance of the harbor for compliance under the Clean Air Act. | 6.13: Air Quality |
| EPA - 14 | Risks to storm surges and storm intensity are included in the warming scenarios that are approved for use across all USACE studies which are updated periodically, so that each NEPA document uses the most recent climate modeling based on the warming scenarios. While the project design is not immune to changes for shifting shoaling rates during the operations and maintenance period due to climate change induced shifts in sediment load transport rates, similar to the rest of San Francisco Bay, there is likely no feasible design that could resist such changes in shoaling rates without being hydrologically isolated from the rest of the bay. Although climate resiliency measures may not be feasible in the design of the turning basins, resiliency to climate change is demonstrated through the greenhouse gas emissions analysis which shows a net reduction in emissions which is understood to reduce the frequency and intensity of climate risks worldwide. Further details for how the net emissions reductions positively affect resiliency to climate change and how the Project benefits relevant state or local adaptation plans can be found in the Port of Oakland's Draft EIR, Chapter 3.8.4. See response to EPA – 15. Furthermore, because GHG emissions have a long residence time in the atmosphere and mix to an | 3.14: Greenhouse Gasses, 4.4: Key Uncertainties and Planning Decisions |

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| | equilibrium such that emissions from any one source can affect distant regions cumulatively along with other sources of greenhouse gas emissions, it is understood that emissions reductions will provide benefits worldwide and not just in the region where they are emitted, as local climate change impacts result from global cumulative emissions. Due to the global nature of greenhouse gas emissions local and regional impacts from climate change would only be induced due to a fraction of the emissions produced by the Project that stay locally in the atmosphere instead of dispersing and to avoid anticipated future impacts from climate change in a particular region a cumulative decrease in emissions worldwide must be achieved. For these reasons, a comparison of the local emissions to the local effects anticipated from climate change was not performed for the Project. | |
| EPA - 15 | The Port of Oakland Power Content label for 2021 indicated that the Port's power mix was made up of 49.9% eligible renewables which includes 21.9% solar power, 18.4% wind power, and 9.4% biomass and waste. Additionally, large hydroelectric sources which are carbon neutral make up an additional 8.7%. This is substantially better than the average California Power Mix in 2021 and better than required under California's Renewable Portfolio Standards (RPS). California's RPS regulation requires increasing percentages of eligible renewables used as the electricity supply by a public utility company. The RPS regulation has the following eligible renewable requirements: 44% by 2024, 52% by 2027, 60% by 2030 and 100% by 2045. In 2022, these were updated even further requiring 90% of all retail sales of electricity to California end-use customers by December 31, 2035; 95% of all retail sales of electricity to California end-use customers by December 31, 2040; 100% of all retail sales of electricity to California end-use customers by December 31, 2045.<br><br>Given the aggressive existing state regulations requiring increasing percentages of carbon neutral electricity that the Port's Utility will comply with, there is no need for the Project to adopt further measures decreasing the carbon intensity beyond the California regulations. Requirements for carbon intensity reductions more aggressive than the California regulations may cause issues with electricity supply especially during extreme heat events where recently California has already struggled with electricity supply at these times that required vessels to unplug from shore power as allowed for in California's at-berth regulation to avoid brownouts to other electricity consumers. In addition to the RPS regulation, California also has a cap-and-trade program that requires the surrendering of GHG emission allowances which allows for any GHG emissions associated with carbon-based electricity generation to be addressed with the most efficient market-based solution among all GHG emitters covered in the cap-and-trade program. The RPS and cap-and-trade regulations adequately address the Project's GHG emissions from use of electricity during shore power and are in line | 6.14.1: Greenhouse Gas Emissions Calculations |

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| | with California's Scoping Plan to reach California's GHG emission reduction goals.<br><br>The shore power consumption of electricity and associated GHG emissions has been calculated based on the Port's 2021 Power Content Label and are provided in the table below for the Project and No Action based on the anticipated mix of vessel fleets in the years 2030, 2040 and 2050. This shows that the increase in GHG emissions from the Proposed Project compared to the Future No Action shore power GHG emissions is less than 300 metric tonnes of $CO_2e$. This is conservative as the carbon intensity of electricity in California is anticipated to decrease in the future due to existing California RPS and cap-and-trade regulations described above.<br><br>When combined with the vessel emissions for the Project and future No Action Alternative, combining the GHG emissions from shore power with the vessel engine GHG emissions from transiting, maneuvering and at-berth, there would still be a net decrease in emissions with the Proposed Project compared to the future No Action due to the combination of changes in container vessel fleet mixes, number of calls per container vessel, and time at-berth.<br>Table. Shore power Electricity and Associated GHG Emissions in 2030, 2040, and 2050 for the Project and No Action Alternative.<br><br>**Table for Comment EPA-15: Shorepower Electricity and Associated GHG Emissions in 2030, 2040, and 2050 for the Proposed Project and No Project**<br><br>\| Future Operational Year \| Proposed Project (MegaWatt-hours) \| No-Project (MegaWatt-hours) \| Proposed Project (metric tonnes $CO_2e$ per year) \| No-Project (metric tonnes $CO_2e$ per year) \|<br>\|---\|---\|---\|---\|---\|<br>\| 2030 \| 740,641 \| 66,006 \| 9,696 \| 9,401 \|<br>\| 2040 \| 1,170,527 \| 976,071 \| 12,206 \| 11,998 \|<br>\| 2050 \| 1,852,570 \| 1,534,466 \| 15,262 \| 15,140 \| | |
| EPA - 16 | See EPA-2. The widening of both the Inner and Outer Harbors are necessary to meet the project purpose of addressing inefficiencies resulting from the increase in the size of vessels calling at the Port and ensure safe navigation for existing and prospective commerce. As discussed in response to EPA-2, since the Port is unable to direct ships based on size, an Outer Harbor only solution would leave the Inner Harbor still suffering from an insufficient turning basin, with its attendant problems. Those include operational restrictions that result in vessel delays, vessel idling, and requiring tugs, pilots, and specific tide schedules for movement of the largest vessels. Therefore, the Outer Harbor only alternative is not practicable because it does not fully meet the Project purpose. Expansion of both turning basins is needed to meet the Project's purpose to improve operational efficiency and navigational safety for vessels entering and exiting the Port. The alternatives that expand both the Inner and Outer Harbor turning basins (D-O, D-1, and D-2) all have the same impacts to Waters of the U.S. Alternative D-2 was selected as the least environmentally damaging practicable alternative (LEDPA) because among the D alternatives that expand both the Inner and outer Harbor turning | 1.2: Study Purpose & Scope, Appendix A03a: 404(b)1 Analysis, Appendix A07: Avoidance and Minimization Measures |

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| | basins, it has the potential to restore the most acreage of wetlands through the beneficial reuse of aquatic dredged and terrestrial excavated material. Additionally, this alternative would remove contaminated soils from the project area, thus reducing the risk of future groundwater contamination. The Inner Harbor Turning Basin expansion would require the placement of fill material into the Waters of the U.S., but the fill would be the minimum amount of material necessary to maintain the future structural integrity and seismic safety of the rock dike, bulkhead, and piles being replaced to meet project goals. The fill would consist of clean construction materials. To further implement avoidance and minimization measures, the construction contractor would adhere to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, and both prepare and implement a stormwater pollution prevention plan (SWPPP). The SWPPP would utilize best management practices to minimize discharges, limit erosion, and prevent the release of construction wastes and hazardous materials. Other minimization measures can be found in Appendix A07. At this stage of the project, the San Francisco Regional Water Quality Control Board believes it does not have the information necessary to process a 401 Certification. Therefore, the 401 Certification process has been delayed until the PED phase. | |
| EPA - 17 | If this project were to be implemented the volume of annual maintenance dredged material would increase slightly by 10-12%. USACE already evaluated those potential environmental impacts of dredging at that level of volume in the Final Environmental Assessment/ Environmental Impact Report for the Maintenance Dredging of the Federal Navigation Channels in San Francisco Bay Fiscal Years 2015-2024 (USACE, 2015). All avoidance and minimization measures are addressed in that document and were approved by the DMMO and do not change from the execution of this project. The measures you suggest such as silt curtains are generally not implemented in O&M dredging because these projects are dredging recently settled sediment from previous year which contains the same level of constituents as ambient levels. Measures such as silt curtains are implemented when we dredge new areas that are known to contain levels contaminants that could be a hazard to fish and wildlife. A new NEPA document will be prepared in 2025 that will address the expected volumes predicted to be dredged over the next 10-year period based on the information available at that time. USACE maintenance dredging is subject to compliance with the Federal Standard which does not include the significant cost of electrifying dredges, and thus cannot commit to doing so at this time. | Appendix A07: Avoidance and Minimization Measures |
| EPA - 18 | Current NEPA regulations do not provide specific criteria for cumulative impact analyses, however the White House Council on Environmental Quality (CEQ) created a guidebook, “Considering Cumulative Effects Under the National Environmental Policy Act” (CEQ, 1997) for best practices. The analysis for this project followed the process recommended in the guidebook. The guidebook defined a | 6.16: Cumulative Impacts |

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| | cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 C.F.R. 1508.1(g)(3))". A geographic scope and time frame was created for the past, present, and reasonably foreseeable future projects as recommended by the CEQ, which include projects that are close to the proposed turning basins expansion areas. Section 6.16 addresses cumulative impacts for this project. For environmental justice, the project's action alternatives would have short-term, less-than-significant effects related to air quality, noise, and transportation during construction. The action alternatives would not result in substantial adverse human health or environmental resource impacts that would disproportionately harm low-income communities and/or minority communities and minimization measures would be used to reduce the effects from construction. Additionally, past, present, and reasonably foreseeable projects were considered as part of the cumulative analysis, as documented in Table 75, which identified projects that could result in overlapping impacts to resources. Although there are no available analyses of environmental justice impacts for the past, present, and reasonably foreseeable projects, all projects listed would be required to implement mitigation measures to reduce potentially significant effects. This would lessen the effects to resources such as air quality, water quality and public health risks to surrounding communities. | |
| EPA - 19 | All the measures in Appendix A07 are considered as elements of the Project that will be implemented by the USACE as the agency that will contract all the construction effort. The impacts requiring measures to reduce them to insignificance are underwater noise generated by impact driving and potential exposure to water born contaminants. The measures that will be implemented are mentioned in the effects determinations on water quality and noise in sections 6.4, 6.5, and 6.6. Additional BMPs may be added during the CWA 401 certification process. The Port has committed to electric dredging in their Draft EIR. A letter from the Port which states this commitment to funding the cost of an electric dredge over diesel dredging in Appendix E, Waivers. USACE will convey to the Port, EPA's comment requesting a letter with regards to electrification of landside infrastructure. | Appendix A07: Avoidance and Minimization Measures, Appendix E: Waivers, 6.4: Water Quality, 6.5: Wildlife, 6.6: Special Status Species and Protected Habitats |
| EPA – 20 | Comment noted. USACE will share EPA's comment with the Port. | NA |

# APPENDIX A-10-2: COMMENTS AND RESPONSES TO EARTHJUSTICE COMMENTS

OAKLAND HARBOR TURNING BASIN

Oakland, California

January 2024

US Army Corps of Engineers ®

# Earth Justice Comments

*VIA ELECTRONIC SUBMISSION*

Mr. Eric Jolliffe, Environmental Planner
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June 16, 2023

RE: Comments on Oakland Harbor Turning Basins Widening Navigation Study; Revised Draft Integrated Feasibility Report and Environmental Assessment

Dear Mr. Jolliffe:

We submit this letter on behalf of West Oakland Environmental Indicators Project ("WOEIP"), Center for Biological Diversity, Sierra Club, West Oakland Neighbors, Environmental Defense Fund, and Pacific Environment to comment on the U.S. Army Corps of Engineers' issuance of a Revised Draft Integrated Feasibility Report and Environmental Assessment ("Revised Draft EA") for the widening of the Oakland Harbor Turning Basins (the "Project") on April 26, 2023.[1]

In this Revised Draft EA, the Army Corps has added several new written sections to its original December 2021 draft Integrated Feasibility Report and Environmental Assessment (the "December 2021 Draft EA"), including an analysis on the potential for induced growth, greenhouse gas emissions analysis, a health risk assessment, and a Clean Water Act section

[1] We refer throughout these comments to the Revised Draft EA and associated appendices located here: https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Current-Projects/Oakland-Harbor- Turning-Basins-Widening/ (last accessed June 16, 2023).

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404(b)(1) analysis. Members of our coalition previously identified each of those analyses as missing or insufficiently considered.

However, even with those modifications, the Army Corps has not adequately considered the impacts of expanding the Turning Basins on the nearby community. We have attached our February 14, 2022 Coalition Comment Letter to this submission as **Exhibit A** and are incorporating its contents and appendices by reference into these comments. Except as noted below, the issues identified in our prior letter all remain areas of concern in the Revised Draft EA. We urge the Corps to address the remaining omissions and deficiencies before moving forward with the Project.

In these comments, we identify a series of errors and omissions of analysis that violate the National Environmental Policy Act ("NEPA"), including a failure to scope the Project appropriately or to consider reasonably foreseeable operational impacts (Section I.A); an incomplete analysis of whether the expansion of the Turning Basins will induce growth (Section I.B); a failure to adequately analyze potentially significant and reasonably foreseeable environmental impacts, including to air quality, environmental justice communities, greenhouse gas emissions, regional wildlife, and dredging (Section I.C); an inadequate demonstration of the need for the Project (Section I.D); a failure to consider less impactful alternatives to the expansion of both Basins (Section I.E); and an inadequate analysis of reasonable mitigation measures (Section I.F).

We are also increasingly concerned about the Corps' decision to move forward with a National Environmental Policy Act ("NEPA") analysis separate from the Port of Oakland's forthcoming California Environmental Quality Act ("CEQA") analysis (Section I.G). Throughout the Revised Draft EA, the Corps identifies multiple potentially significant impacts that may require mitigation, but disclaims responsibility for developing those mitigations. The Corps' decision to separate the NEPA and CEQA processes makes public review more challenging, requires members of the public to expend additional time to review each of the separate environmental documents and supporting materials, and leaves community members in the dark about which entities will take responsibility for which aspects of mitigation. Finally, the Corps has also failed to engage meaningfully with the local community, as described in Section I.H below.

We urge the Army Corps to withdraw the Revised Draft EA and develop a full draft Environmental Impact Statement (EIS) for public review, on a timeline that would run concurrently with the Port's forthcoming CEQA process, to enable members of the public to participate more meaningfully and efficiently in both processes. **Earth Justice-1**

We include a table of contents on the next page to facilitate review.

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## I. The Revised Draft EA Fails to Comply with the National Environmental Policy Act

Earth Justice-2

The Corps' Revised Draft EA fails to pass muster under NEPA. NEPA requires that agencies must take a "hard look" at the environmental impacts of their actions before the actions occur.[2] "General statements about 'possible' effects and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive information could not be provided."[3] The "'hard look' 'must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made.'"[4]

Earth Justice-3

Furthermore, when an EA indicates that the federal action "may" significantly affect the quality of the human environment, the agency must prepare an EIS.[5] "A determination that significant effects on the human environment will in fact occur is not essential. If substantial questions are raised whether a project may have a significant effect upon the human environment, an EIS must be prepared."[6]

As described below, the Corps failed to disclose or analyze myriad reasonably foreseeable impacts from expansion of the Turning Basins. Because of these flaws, we urge the Corps to withdraw the Revised Draft EA and instead issue a complete Environmental Impact Statement that complies with NEPA.

### A. *The Revised Draft EA is Still Scoped Too Narrowly and Fails to Disclose or Analyze Reasonably Foreseeable Project Impacts*

Earth Justice-4

The scope of the Corps' analysis in the Revised Draft EA is flawed in two distinct but related ways. First, the Corps still focuses too narrowly on construction impacts associated with expanding the Basins. The Corps fails to disclose or analyze the reasonably foreseeable operational impacts that visitation by ultra-large container vessels—and ongoing Port operations to host those vessels—could bring to adjacent neighborhoods. Second, the Corps inappropriately defines the physical scope of the Project to encompass only a one-mile radius that is too narrow to capture potentially significant adverse environmental and human health impacts in the broader San Francisco Bay region.

As members of our coalition emphasized throughout our February 2022 Coalition Comment Letter, this is *not* a mere isolated construction project: the widening of the Basins is inextricably tied to the commercial operations of a busy maritime port that consistently ranks among the top ten busiest ports in the United States. The Corps' Project implicates the entire Port of Oakland's operations, with corresponding impacts on the Port's use of physical space, deployment of cargo handling equipment, and the truck and rail traffic required to coordinate

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[2] *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989).
[3] *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1380 (9th Cir. 1998).
[4] *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 491 (9th Cir. 2011).
[5] *Anderson v. Evans*, 371 F.3d 475, 488 (9th Cir. 2004).

[6] *Found. for N. Am. Wild Sheep v. U.S. Dep't of Agric.*, 681 F.2d 1172, 1178 (9th Cir. 1982) (internal citation omitted).

arrival and departure of cargo with the berthing of each ultra-large container vessel (ULCV).[7] Indeed, the Corps admits that the Project would "allow large vessels to call [at the Port] more frequently."[8] **Earth Justice-5**

It is fundamentally inconsistent for the Corps to state that expanding the Basins would achieve "*operational* efficiency for vessels entering and exiting the Port"[9]—but then simultaneously disclaim that it has any obligation under NEPA to analyze the Port's operations themselves. The Corps cannot have it both ways. Because the Corps admits the proportion of ultra-large vessels will increase if this Project moves forward, it is obligated under NEPA to analyze the reasonably foreseeable impacts on Port operations. Analysis of all reasonably foreseeable impacts is a crucial aspect of an agency's compliance with NEPA before it may pursue any federal action.[10]

Our February 2022 Comment Letter explained that NEPA requires the Corps to consider the reasonably foreseeable operational impacts on the Port.[11] Numerous other agencies shared our concerns, including the California Office of the Attorney General,[12] the U.S. Environmental Protection Agency (EPA),[13] the Bay Area Air Quality Management District (BAAQMD),[14] and

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[7] We use the industry term ULCV throughout these comments to refer to vessels that are Post-Panamax Generation III or Generation IV, with over ~15,000 twenty-foot equivalent units (TEUs), although there is no universally adopted TEU threshold for ULCVs.

[8] Revised Draft EA at v.

[9] See, e.g., Revised Draft EA at 157, 166.

[10] 40 C.F.R. § 1508.1(g); see 40 C.F.R. § 1501.2(b)(2); *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1075-77 (9th Cir. 2002); *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1214
(9th Cir. 1998).

[11] See generally February 2022 Coalition Comment Letter, Exh. A at 6-13.

[12] Cal. Dep't of Justice, Office of the Attorney General, Letter to Eric Jolliffe, Comments on Oakland Harbor Turning Basins—Draft Integrated Feasibility Report and Draft Environmental Assessment (hereinafter "California Attorney General Comments") (May 9, 2022), at 5-7, 12-13; *id.* at 6-7 (critiquing the Corps' decision to omit analysis of the Project's operational impacts, and noting the lack of evidence supporting the Corps' assumption that there will be no change in operations at the Port following construction of the Project).

[13] U.S. EPA, Region IX, Letter to Eric Jolliffe, Comments on the Oakland Harbor Turning Basins Widening Navigation Study, Draft Integrated Feasibility Report / Environmental Assessment, Alameda County, CA (hereinafter "EPA Comments") (Feb. 14, 2022), at PDF p. 2 (encouraging the Corps to "work with the Port of Oakland to analyze and disclose how the resulting container movement efficiencies would influence the timing, scope, and location of port and freight throughput operations"); see *id.* at PDF p. 5.

[14] Bay Area Air Quality Mgmt. Dist. ("BAAQMD"), Letter to Eric Jolliffe, Comments on Oakland Harbor Turning Basins Widening Navigation Study Project Draft Integrated Feasibility Report and Environmental Assessment (hereinafter "BAAQMD Comments") (Feb. 14, 2022) at 3 (recommending that the Corps should analyze "all potential operational phase emissions, including any changes in emissions due to changes in vessel activity during ship

calls, changes in types of vessels calling at the Port, increased ship calls, and any increased use of off-road equipment and on-road truck trips" and that the Corps should "[c]omplete an analysis of air quality impacts of the [Turning Basins] Project's operational phase, including a cumulative analysis that considers all reasonab[ly] [sic] foreseeable projects with the potential to further burden West Oakland with exposure to emissions ..... ").

the San Francisco Bay Conservation and Development Commission (BCDC).[15] Each of those agencies identified concerns about the improperly narrow scope of the Corps' analysis.

Notwithstanding the chorus of concerns raised about the scope of the Project in response to the December 2021 Draft EA, the Army Corps doubles down in the Revised Draft EA on a narrowly scoped Project. The Corps again analyzes only the construction impacts of the Project, rather than acknowledging that the Turning Basins are inextricably related to Port operations.[16] And, just as before, the Corps inappropriately defines the scope of environmental impacts within only a one-mile radius of the Turning Basins.[17] That constrained approach fails to capture reasonably foreseeable, potentially significant and cumulative environmental impacts that could result from increased visitation at the Port by ultra-large vessels, such as the impacts on air quality, the risk of ship strikes on marine mammals, and the possibility of oil spills, among other things, as discussed more fully in Section I.C below. **Earth Justice-6**

The Corps does not satisfactorily explain why it has failed to revisit the scope of the Project. Instead, the Corps' Response to Comments merely restates its original position without providing any additional, meaningful analysis:

> Dredging and construction will indeed be the primary source of emissions attributable to the Recommended Plan. The corresponding one-mile radius for environmental impacts from the center of the turning basins is appropriate.[18]

The Corps' refusal to define the scope of the Project appropriately violates NEPA. NEPA requires an agency to provide a complete and accurate description of a proposed federal action.[19] Because the Corps has not done so here, it must revisit its environmental analysis and produce a complete EIS that analyzes all reasonably foreseeable, potentially significant, and cumulative impacts with an appropriate scope.

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[15] San Francisco Bay Conservation and Development Commission ("BCDC"), Letter to Eric Jolliffe, Comments on Draft Integrated Feasibility Report and Environmental Assessment for the Oakland Harbor Turning Basins Widening Navigation Study (hereinafter "BCDC Comments") (Feb. 14, 2022) at 2-3 (recommending that the Corps undertake a "more comprehensive and holistic analysis" of the Project and urging the Corps to consider indirect impacts).

[16] See, e.g., Revised Draft EA, "App'x A4a: Air Quality Applicability Assessment" at 1 ("The purpose of this memorandum is to assess, for use in National Environmental Policy Act (NEPA) documentation, the impact that air emissions *related to project construction* have on air quality in the region.") (emphasis added); see also Revised Draft EA, "App'x A4b: Draft Health Risk Assessment" at 2 ("This Health Risk Assessment (HRA) was prepared to evaluate the increase in health risks to nearby receptors *from exposure to construction emissions* ").

[17] See, e.g., Revised Draft EA at 34 ("The 1-mile radius is intended to account for potential construction traffic impacts in the areas closest to the construction sites."); Revised Draft EA, "App'x A10c: Response to Public Comments," Comment 126 at PDF pp. 17-18 (stating that "blue and humpback whales are not expected in the immediate Project area" despite the presence of whales in the San Francisco Bay).

[18] Revised Draft EA, "App'x A10c: Response to Public Comments," Comment 101 at PDF p. 9.

[19] *E.g.*, *Aberdeen & Rockfish R.R. Co. v. Students Challenging Regulatory Agency Procedures*, 422 U.S. 289, 322 (1975) ("In order to decide what kind of an environmental impact statement need be prepared, it is necessary first to describe accurately the
'federal action' being taken.").

B. ***The Revised Draft EA's Induced Growth Analysis Fails to Contextualize the Project amidst the Port's Present Efforts to Expand***

The Corps asserts that expansion of the Basins will not increase cargo throughput, but it fails to consider this Project in context alongside the Port's current efforts to expand its capacity. The Corps claims that the Port's berth constraints and yard constraints will limit any increase in twenty-foot-equivalent unit (TEU) throughput, flatly offering the conclusory point that expanding the Turning Basins "cannot change the number of vessels able to berth at a single time, nor change the constraints of the yard."[20] **Earth Justice-7**

The Corps ignores the fact that the Port is presently seeking the very landside expansions that could enable greater growth and an increase in cargo throughput, especially if the Turning Basins are expanded. For example, in May 2022, the Port submitted a successful grant application to the U.S. Department of Transportation's Maritime Administration (MARAD), seeking more than $36 million to develop one of its terminals to provide "expansion opportunities for increased container capacity."[21] The terminal that will receive those upgrades is called the Outer Harbor Terminal, which is immediately adjacent to the Outer Turning Basin that the Corps seeks to expand with this Project.[22] MARAD awarded the Port the grant money it sought in October 2022.[23]

Similarly, in January 2023, the Port submitted a grant application to the California State Transportation Agency (CalSTA) for a "Terminal Modernization Project" that seeks to dedicate about $177 million toward improvements at the Outer Harbor Terminal that facilitates the berthing of ULCVs.[24] With the money from a CalSTA grant, the Port seeks to "create seamless new berth capacity for ULCVs," "free up valuable real estate that can be used for terminal expansion," and "increase its container handling capacity."[25]

As these grant applications demonstrate, the Port is already pursuing precisely the type of growth that would complement an expansion of the Basins. If all of these projects continue to move forward simultaneously, it could facilitate growth at the Port by increasing container

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[20] Revised Draft EA at 151.

[21] See generally Port of Oakland, "FY 2022 Port Infrastructure Development Program (PIDP) Grant: Outer Harbor Terminal Redevelopment" (submitted May 16, 2022 to U.S. MARAD), https://www.portofoakland.com/wp-content/uploads/Project-Narrative_1_PIDP_Port-of-Oakland_5-16- 22.pdf.

[22] *Id.* at 1; see Revised Draft EA at 13 [map].

[23] U.S. MARAD, "Biden-Harris Administration Announces More Than $703 Million to Improve Port Infrastructure, Strengthen National Supply Chains, Lower Costs" (Oct. 28, 2022), https://www.maritime. dot.gov/newsroom/biden-harris-administration-announces-more-703-million-improve-port-infrastructure;
U.S. MARAD, "FY 2022 Port Infrastructure Development Grant Awards" (Oct. 28, 2022) at 2, https://cms.marad.dot.gov/sites/marad.dot.gov/files/2022-10/FY%202022%20Port%20Infrastructure%20Development%20Grant%20Awards.pdf.

[24] See generally Port of Oakland, "FY 2022 Port and Freight Infrastructure Program (PFIP): Terminal Modernization Project" (submitted Jan. 13, 2023 to Cal. State Transportation Agency), https://www.portofoakland.com/wp-content/uploads/CalSTA-PFIP_Terminal-Modernization- Narrative_Final_01-13-23.pdf.
[25] *Id.* at 6, 16, and 7, respectively.

throughput. Billions of dollars in federal funding have been made available for these and other infrastructure upgrades throughout the country due to the passage of the Infrastructure Investment and Jobs Act of 2021 and the Inflation Reduction Act of 2022. The grants the Port is pursuing are likely the first of many that could facilitate an expansion in cargo throughput. If not adequately mitigated, such an expansion of Port activity will increase air pollution and cause harm to the communities living adjacent to the Port. The Corps' conclusory assertion that the Port has berth and yard constraints thus takes an unnecessarily myopic view of the operational landscape.

We urge the Corps to revisit its induced demand analysis and take a hard look at the expansion of the Turning Basins in the appropriate context: as a physical modification to Port property, in an environment in which the Port is simultaneously seeking funding to expand its own landside capacity, while operating next to a disproportionately burdened community that is already disproportionately burdened by air pollution and truck traffic.

### C. *The Revised Draft EA Does Not Adequately Analyze Significant or Cumulative Impacts of the Project*

**Earth Justice-8**

The Corps' Revised Draft EA fails to consider a series of reasonably foreseeable, significant and cumulative impacts stemming from the Project. Most of these errors stem from improper scoping, as discussed above. Most centrally, the Army Corps inappropriately disclaims responsibility for all landside impacts, theorizing that "[t]he pressures of larger ships, whether [Post-Panamax Generation III] or ULCVs, exist independent of the Recommended Plan."[26] That statement by the Corps relies on the false idea that the expansion of the Basins is somehow divorced from the operation of the Port itself.

As outlined below, we have deep concerns that the Corps has not taken a sufficiently hard look at the actual impacts of expanding the Basins, including the impacts: (1) on air quality, (2) on disproportionately burdened communities, (3) on greenhouse gas emissions and global climate, (4) on regional wildlife, and (5) from dredged material, as described in each of the following five subsections. Because of these omissions, the Corps' Revised Draft EA fails to comply with NEPA.

#### 1. Impacts on Air Quality

The air quality analysis in the Revised Draft EA is flawed: (a) the Corps fails to undertake any analysis of vessel emissions from ULCVs; (b) the Corps fails to consider the impacts of ULCV visitation on regional cargo movement through Northern California; (c) the Corps improperly relies on the General Conformity thresholds, (d) the Corps fails to consider the emissions impacts from an increased degree of maintenance dredging; and (e) the Corps' responses to public comments fail to meaningfully justify its decision to pursue the Project.

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[26] Revised Draft EA, "App'x A10c: Response to Public Comments," Comment 105d at PDF p. 11.

a. *Failure to Analyze Vessel Emissions Profile of ULCVs*

First, the Revised Draft EA nowhere analyzes the vessel emissions profile of a Post-Panamax Generation III or Generation IV ULCV when it berths at the Port of Oakland. This represents a glaring omission, considering that the Corps repeatedly admits this Project will bring such vessels to the Port more frequently than before.[27] And its failure to analyze emissions is especially problematic because it is already well established that ocean-going vessels are the largest source of diesel particulate matter at the Port, and that they contributed to more than three-quarters of all nitrogen oxides ($NO_X$) emissions at the Port in 2020.[28] **Justice-9**

Even if the Revised Draft EA is correct that the introduction of ULCVs will reduce the total annual number of vessel visits, the Corps did not properly analyze the air quality impacts that increased visitation by ULCVs could produce.

Numerous scientific articles have identified emissions issues with newer containership vessels operating at slow speeds. While containerships sometimes operate at slower vessel speeds to reduce fuel consumption and limit carbon dioxide emissions (a practice known as "slow steaming"), a growing body of research indicates that $NO_X$ emissions in such vessels may be higher when operating at slower engine loads. **Earth Justice-10**

For example, a technical paper published in April 2018 in the Journal of the Air and Waste Management Association analyzed the emissions for two groups of post-Panamax container ships operating in a "slow steaming" mode: one group that satisfied the Tier I emissions limits, and another that satisfied the Tier II emissions limits.[29] The authors reported their conclusions: "at slow steaming, the diesel engine presumed to meet the Tier II limits actually emitted more $NO_X$ than its certification value"—meaning, the amount a vessel can be expected to emit based on its tier status.[30] The authors calculated that the standard predicted $NO_X$ emissions rates underestimated actual logged emissions by 21.9%. Furthermore:

> Although total $NO_X$ emissions at slow steaming are undoubtedly lower than those at fast steaming, *higher emissions at lower power cause an underestimation of the*

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[27] See Revised Draft EA at 30 ("[A] future with [the Turning Basins] project would allow the maritime industry to take advantage of more PPX Gen IV vessels that have larger TEU capacity, as shown in the vessel call projections."); see also *id.* at 116 ("Widening the turning basins would allow . . . for the ULCVs to call the Port of Oakland more frequently."); see also *id.* at 143 (stating the Project would "allow large vessels to call more frequently").

[28] Port of Oakland, 2020 Seaport Air Emissions Inventory: Final Report (hereinafter "2020 Seaport Emissions Inventory") at 79-82 (Nov. 2021), https://www.portofoakland.com/files/PDF/Port%20Oakland%202020%20Emissions%20Inventory%20Final%20Report.pdf.

[29] See generally Cheng, Chih-Wen, et al., "Nitrogen oxide emission calculation for post-Panamax container ships by using engine operation power probability as weighting factor: A slow-steaming case," 68 J. Air & Waste Mgmt. Ass'n 6 (Apr. 2018), pp. 588-597, https://doi.org/10.1080/10962247.2017.1413440.

[30] *Id.*

*actual total $NO_X$ emissions* when the total $NO_X$ emissions from slow steaming are calculated using the certification value.[31]

In other words, such vessels are underperforming and over-polluting relative to the predicted amount of emissions that should be expected of a vessel based on its tier.

More recent studies likewise indicate that newer containerships operating at slow speeds may produce excessive $NO_X$. A Technical Memorandum produced in 2022 for the South Coast Air Quality Management District found that 56% of Tier II containerships exceed the expected $NO_X$ emission factors for their tier status, meaning that "*there is a risk of a general underestimation of the $NO_X$ contribution* from [slow-speed diesel] [ocean-going vessels]," particularly at lower [engine] loads.[32] And a September 2022 article in Atmospheric Pollution Research reached a similar conclusion: "$NO_X$ emissions for Tier II [ocean-going vessels], *contrary to what might be expected, are on average higher* than those for Tier I [ocean-going vessels]."[33]

The Corps did not consider any of this research in its Revised Draft EA. It did not consider vessel emissions at all.

The expert report of Dr. Edward Carr (attached as **Exhibit B**, hereinafter "Carr Report") addresses the omissions in the Corps' analysis and performs a vessel emissions profile for a typical ULCV visit at the Port of Oakland. The results corroborate what the scientific literature suggests: when ULCVs running on Tier III engines operate at extremely low speeds below 25% of their engine capacity, their $NO_X$ emissions drop down to levels closer to Tier II emission rates—in other words, more than *four times greater* than what is allowable under Tier III.[34] Put more simply, larger containerships running on newer engines at very low speeds may actually be polluting (emitting $NO_X$) at a much higher rate than anticipated, according to the Carr Report.

These findings regarding emissions at low vessel speed are not merely academic: very low speeds are common—and indeed, become necessary—in each containership's approach to Oakland Harbor. Most containerships arriving to the Bay Area are already operating at low speeds as they approach. Many such vessels practice slow-steaming to economize fuel consumption, and others operate at reduced speeds because the area outside of the San Francisco Bay is part of a vessel speed reduction zone intended to reduce the impact of ship strikes on

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[31] *Id.*

[32] Knudsen, Bettina, et al., "Technical Memorandum, Contract No. 21222: Evaluating NOx Emission Inventories for Ocean-Going Vessels Using Real Emissions Data," Explicit ApS (Sept. 2022) at 37, http://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/explicit-aps-contract-no-21222.pdf (emphasis added).

[33] Van Roy, Ward, et al., "Airborne monitoring of compliance to $NO_X$ emission regulations from ocean-going vessels in the Belgian North Sea," 13 Atmospheric Pollution Research (Sept. 2022), https://doi.org/10.1016/j.apr.2022.101518 (emphasis added).

[34] See Carr, Edward W., Energy and Environmental Research Associates, "Oakland Harbor Turning Basins Widening: Peer review services for evaluating Air Quality, Emissions, and Economic Analysis: Operations and Emissions" (hereinafter "Carr Report") (June 12, 2023) at 10.

whales.[35] Even if a vessel does not adhere to speed reductions in the open ocean, all vessels must invariably lower their speeds to pass safely under the Golden Gate Bridge and navigate through the Bay, under the Bay Bridge, and into the Oakland Harbor. The Carr Report includes visual maps based on Automatic Identification System (AIS) data demonstrating the average speed of two containership vessels (of 16,000 and 19,000 TEU capacity) as each recently transited through the San Francisco Bay before berthing at the Port of Oakland. The Carr Report shows that such vessels travel at speeds at or below twenty percent of their engine loads shortly after passing under the Golden Gate Bridge and continue operating at lower speeds until berthing at the Port of Oakland.[36]

What this means in practice is that even the newest Tier III ULCVs visiting the Port will be emitting $NO_X$ at higher-than-projected levels (more closely approximating the emissions of Tier II vessels) in every approach to and departure from the Port of Oakland and the already disproportionately exposed landside community. And because the expansion of the Basins will enable ULCVs to visit the Port more frequently, $NO_X$ emissions could increase even further as a result of the Project. **Earth Justice-11**

These findings are particularly troubling because emissions of $NO_X$ are directly linked to the formation of ozone (smog). Given West Oakland's disproportionate air pollution burden and Alameda County's nonattainment status for ozone,[37] any increase in the amount of $NO_X$ caused by increased visitation by ULCVs will cause further harm to local residents and reduce the region's ability to meet national ambient air quality standards. The Corps entirely failed to consider this possibility in its Revised Draft EA.

The Carr Report also indicates that visitation by ULCVs can produce substantial particulate matter emissions. Specifically, each visit by a Tier II vessel of about 19,000 TEU can be expected to emit a *minimum* of 0.02 metric tons—roughly 44 pounds—of $PM_{10}$ (particulate matter 10 microns or less in diameter) on its visit through the San Francisco Bay.[38] (As the Carr Report notes, for ocean-going vessels, 92% of $PM_{10}$ is comprised of $PM_{2.5}$—the most dangerous type of particulate matter pollution to human health.)

Embedded in this estimate are the conservative assumptions that the ULCV is able to pull directly into the berth, requires limited maneuvering, spends no time at the anchorage, and plugs

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[35] Vessels over 300 tons are advised to limit speeds to 10 knots or less under the program. See Nat'l Oceanic and Atmospheric Admin., Greater Farallones National Marine Sanctuary, "Vessel Speed Reduction to Protect Whales" (n.d.) (hereinafter NOAA, "Vessel Speed Reduction"), https://farallones.noaa.gov/eco/whales/vessel-speed-reduction.html.

[36] Carr Report, Exh. B at 4 & Figure 2; also see 7 & Figure 3.

[37] See February 2022 Coalition Comment Letter, Exh. A at 24 (discussing Alameda County's status in marginal nonattainment for national 8-hour ozone 2008 and 2015 standards, and moderate nonattainment for 24-hour $PM_{2.5}$ 2006 standards).

[38] Carr Report, Exh. B at 6 & Table 5. In accordance with the Port of Oakland 2020 Seaport Air Emissions Inventory, emissions are calculated for the duration of time in the San Francisco Bay,

beginning when a vessel passes under the Golden Gate Bridge inbound and outbound. Per EPA's port inventory guidance, $PM_{2.5}$ makes up 92% of $PM_{10}$ for ocean-going vessels. See Carr Report, Exh. B at 5, n.4.

into the Port's shore power system upon arrival—even though none of those are guaranteed for any vessel.[39] If a ULCV were unable to pull directly into the berth and were sent to anchorage, it would continue to produce $NO_X$, fine particulate matter ($PM_{2.5}$) and $CO_2$ at an hourly rate; the same holds true for a ULCV that fails to plug into shore power and continues to run its auxiliary engines while at berth.[40] Furthermore, these calculations do not consider the emissions from any tugs or support vessels required to support the ULCV's berthing or visitation at the Port. In other words, this calculation represents a lower-bound (i.e., best case) estimate for public health purposes. In practice, actual emissions for each vessel's visit could be—and very often likely are—much higher.

Because the Army Corps failed to analyze the emissions profile of ULCVs or the air quality impacts of bringing ULCVs to the Port more frequently, the Corps must withdraw the Revised Draft EA and produce a full EIS that properly analyzes the air quality impacts that are foreseeable when ULCVs visit the Port of Oakland.

b. *Failure to Consider Impacts of ULCV Visitation on Cargo Movement through the Port and into Northern California*

The Army Corps' Revised Draft EA also makes no effort to address our previously stated concerns about the foreseeable impacts that increased ULCV visitation is likely to have on cargo movement through the region: including cargo handling within the Port, truck and rail trips to and from the Port, and traffic flow impacted by such trips. **Earth Justice-12**

The Carr Report identifies several ways in which cargo movement from ULCVs is likely to produce congestion and worsen air quality, which the Corps entirely failed to consider.

First, the arrival of a ULCV at the Port "may actually reduce the rate at which cranes load and unload cargo, as the distances traversed [by cargo handling equipment] are larger and therefore container move cycles are longer."[41] That finding is supported by other scientific literature, which likewise indicates that larger ships generally require additional time to unload larger volumes of cargo,[42] which could result in other ships "queuing" at anchorage or waiting to enter the harbor. As we noted in our February 2022 Coalition Comment Letter, congestion caused by a supply chain backlog in 2021 led to a substantial emissions increase from freight-related sources, specifically from auxiliary engines used to power vessels at anchor waiting to call on the Port.[43] At-anchor emissions from congestion-related delays caused an emissions

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[39] See Carr Report, Exh. B at 8. As discussed more fully in Section I.C.3 below, rates of shore power usage at the Port of Oakland fall well below 100%. In 2022, the Port achieved shore power plug-in for only 62% of vessels.
[40] Carr Report, Exh. B at 5 & Table 4.
[41] *Id.* at 12.
[42] Jungen, Hendrik, et al., "The Rise of Ultra Large Container Vessels: Implications for Seaport Systems and Environmental Considerations," *Dynamics in Logistics* 249-275 (2021) at 258-59, https://link.springer.com/chapter/10.1007/978-3-030-88662-2_12.
[43] February 2022 Coalition Comment Letter, Exh. A at 11.

increase of 5.2 tons per day of $NO_X$ and 0.14 tons per day of particulate matter at the Port.[44] The Corps failed to consider the reasonably foreseeable possibility that larger vessels could impact cargo operations.

Second, the Carr Report notes that the introduction of a "pulse" of containers when a ULCV arrives "may strain yard and cargo handling capabilities if not properly prepared," and "labor demand may be more episodic, correlated with the arrival of large ships that introduce more demand peaks."[45] Those impacts could then cascade out into delays for trucks and rail, on which the Port depends to transport cargo out of the Port and away from West Oakland. These potential "congestion effects" may occur if terminal operators at the Port are unprepared to handle an influx in TEU flow from a ULCV—because "pulses in TEUs may require longer gate hours and additional truck operators to efficiently move the cargo."[46] The Corps did not consider any of these reasonably foreseeable possibilities in its Revised Draft EA.

We reiterate the points raised in our February 2022 Coalition Comment Letter regarding the negative potential impacts that ULCV visitation could have on cargo handling in the Port, truck trips through neighborhoods, parking access issues, and traffic flow through the West Oakland community.[47] The Corps violated NEPA by failing to consider these potentially significant and reasonably foreseeable environmental impacts in its Revised Draft EA.

c. *Improper Reliance on the General Conformity Thresholds*

**Earth Justice-13**

The Corps also inappropriately relied on the General Conformity thresholds in its Air Quality Applicability Assessment (Appendix A4a), rather than the more specific regional criteria that are more protective of public health. BAAQMD, the regional agency tasked with regulating air quality to protect the public's health, warned the Corps in its February 2022 comments that it did not believe that reliance on General Conformity *de minimis* thresholds of 100 tons per year was an appropriate threshold "for identifying potentially significant local and regional air quality impacts."[48] EPA raised similar concerns, stating that it recognized "the need for immediate identification and implementation of additional, robust measures to achieve the cleanest air quality and improve public health in the region."[49] EPA encouraged the Corps to "support all additional project design changes and mitigation measures that would result in improved air quality."[50]

We too are troubled by the Corps' decision to measure air quality impacts based on the less environmentally protective General Conformity thresholds rather than the regional air quality standards. This is particularly concerning given that Port projects, such as this one,

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[44] CARB, "Emissions Impact of Recent Congestion at California Ports" (Sept. 13, 2021), https://ww2.arb.ca.gov/sites/default/files/2021-09/port_congestion_anchorage_locomotives_truck_emissions_final_%28002%29.pdf.
[45] Carr Report, Exh. B at 12-13.
[46] *Id.* at 14.
[47] See generally February 2022 Coalition Comment Letter, Exh. A at 6-13, 25.
[48] BAAQMD Comments, *supra*, at 2.
[49] EPA Comments, *supra*, at PDF p. 4.
[50] *Id.*

disproportionately impact the health and wellbeing of already overburdened, environmental justice communities. Under the Biden Administration's recently issued executive orders, agencies are required to implement strategies that will "yield equitable outcomes . . . for underserved communities."[51] Failing to utilize more protective regional criteria does not accomplish these goals. We therefore reiterate the concerns identified by BAAQMD and EPA in their comments on the December 2021 Draft EA, and urge the Corps to adequately address this concern in an Environmental Impact Statement.

d. *Failure to Consider Maintenance Dredging*

**Earth Justice-14**

The Army Corps also fails to consider the increased emissions due to an increased quantity of annual maintenance dredging. The Revised Draft EA observes that it expects an expansion of the Basins will "require an additional 93,000 cubic yards of material to be removed every year as regular operation and maintenance."[52] However, the Port of Oakland's 2020 Seaport Air Emissions Inventory notes that all annual maintenance dredging is performed by diesel-powered dredges, and supported by diesel-powered tugs that transport dredged material via barge to various disposal sites throughout the San Francisco Bay.[53] Because the Corps fails to analyze the operational impacts of the expansion of the Turning Basins, this represents yet another air quality impact that went unstudied in the Revised Draft EA.

e. *Deficient Response to Public Comments*

**Earth Justice-15**

The Army Corps' Response to Public Comments on air quality is deficient in several respects. Most concerningly, the Corps fails to respond in any meaningful way to concerns that multiple commenters raised about $PM_{2.5}$ and ozone pollution. Instead, the Corps incorrectly recharacterized most of our coalition's concerns as though they were premised exclusively on concerns around greenhouse gases and climate impacts.[54] These responses are unsatisfactory and fail to meet the Corps' obligations under NEPA.

**Earth Justice-16**

The Corps' Response to Public Comments also incorrectly assumes that vessels berthing at the Port categorically do not produce emissions. The Corps speculates that "docked ships are on shore power, therefore they do not contribute to GHGs while docked."[55] But as discussed in Section I.C.3 below, the Port only achieved a 62% shore power plug-in rate in 2022. All vessels not plugged in to shore power remain reliant on diesel-burning auxiliary engines to maintain their on-board operations. (This example also demonstrates the Corps' improper focus in its

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[51] E.O. 14091, "Executive Order on Further Advancing Racial Equity and Support for Underserved Communities Through The Federal Government" (Feb. 16, 2023) at § 3, https://www.whitehouse.gov/briefing-room/presidential-actions/2023/02/16/executive-order-on-further-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/; see also E.O. 14096, "Executive Order on Revitalizing Our Nation's Commitment to Environmental Justice for All" (Apr. 21, 2023), https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/21/executive-order-on-revitalizing-our-nations-commitment-to-environmental-justice-for-all/.

[52] Revised Draft EA at 145.

[53] 2020 Seaport Emissions Inventory at 33.

[54] See, e.g., Revised Draft EA, "App'x A10c: Response to Public Comments," Comments 111-116 at PDF pp. 13-14 (referring only to GHGs and not mentioning particulate matter or ozone).
[55] See Revised Draft EA, "App'x A10c: Response to Public Comments," Comment 111 at PDF p. 13.

Response document exclusively on greenhouse gases, rather than responding to commenters' concerns about particulate matter and ozone.)

**Earth Justice-16a**

### 2. Impacts on Environmental Justice Communities

The Corps fails to properly account for the environmental justice impacts of this Project on disproportionately burdened communities like West Oakland. The Revised Draft EA frames the Turning Basins expansion as an air quality improvement project that will lead to "decreased emissions" and "benefits to the environment and the surrounding communities."[56] Yet despite numerous comments from the public, concerned residents, and a range of agencies like U.S. EPA, BAAQMD, BCDC, and the California Office of the Attorney General, the Corps failed to update its analysis in this Revised Draft EA to either analyze or disclose the full scope of reasonably foreseeable emissions impacts to nearby communities.[57] The Corps' failure to analyze the reasonably foreseeable operational impacts of the proposed Project violates NEPA.

The Corps' decision to narrowly focus on construction impacts while completely ignoring potential impacts to Port operations from this Project continues to skew the analysis. As discussed in our February 2022 Coalition Comment Letter, the Corps must take a hard look at all environmental consequences of this Project and any potential alternatives *particularly because* it acknowledges increased harms to neighboring communities.[58] As part of this obligation, the Corps must first provide a complete and accurate description of the Project that does not unreasonably narrow the scope or inappropriately discount reasonably foreseeable impacts to nearby communities of color and other low-income communities disproportionately impacted by environmental harms.[59]

The Revised Draft EA makes clear that the Project will facilitate more visits from vessels with the capacity to carry more than 19,000 TEUs, nearly triple the size of most vessels that currently visit the Port, and this Project will require an additional 93,000 cubic yards of material to be dredged annually. By entirely ignoring landside impacts, the Corps fails to consider how the additional cargo handling equipment, trucks, and rail use needed during these ULCV visits will have real-world impacts in surrounding disproportionately burdened communities like West Oakland.

In its 2022 State of the Air report, the American Lung Association ranked the Oakland area as the fourth most polluted in the U.S. for daily and year-round particle pollution.[60] And the West Oakland Community Action Plan modeling demonstrates that ship maneuvering and berthing are among the top contributors to cancer risk exposure due to emissions of $PM_{2.5}$ and

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[56] See, e.g., Revised Draft EA at 111, 160.
[57] See, e.g., U.S. EPA Comments, *supra*, at PDF p. 5; see also BCDC Comments, *supra*, at 3; BAAQMD Comments, *supra*, at 3; California Attorney General Comments, *supra*, at 5-8.
[58] *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 374 (1989); *California v. Bernhardt*, 472 F. Supp. 3d 573, 620 (N.D. Cal. 2020).
[59] *Aberdeen & Rockfish R.R. Co.*, *supra,* 422 U.S. at 322.
[60] American Lung Association, "State of the Air 2022," at 13, 15, https://www.lung.org/getmedia/74b3d3d3-88d1-4335-95d8-c4e47d0282c1/sota-2022.pdf.

diesel particulate matter.[61] As these sources indicate, West Oakland is still grappling with a toxic legacy of environmental racism that disproportionately burdens residents with many different and dangerous pollution sources, many of them stemming from Port activity.[62]

**Earth Justice-17**

In addition to entirely ignoring operations impacts, the Corps' limited analysis of construction impacts is also unreasonably constrained. The Revised Draft EA ignored extensive public comments to consider more than a small one-mile radius from each of the Turning Basins. This decision continues to leave out most of the directly adjacent 6.5-square-mile neighborhood of West Oakland. By comparison, the City of Oakland's draft Environmental Justice Element for its 2045 General Plan Update identifies 48 total census tracts as environmental justice communities in Oakland alone, and maps out sensitive land uses across Oakland and other local communities.[63] The Corps must reconcile its analysis with these sources that are directly relevant to the Project area and are more protective of public health and safety.

Finally, the lack of a comprehensive emissions analysis for a ULCV visit limits the Corps' understanding of the impacts of these vessels on local communities. Taking the requisite hard look at all significant environmental justice impacts under NEPA inherently requires an analysis of these cumulative impacts without shortchanging operational changes from the Project. The Corps' disingenuous framing of this proposal as an air quality improvement project for West Oakland therefore ignores key deficiencies in its analysis, which violates NEPA.

a. *Failure to Address Disproportionate Impacts and Engage with Local Communities*

The Corps' failure to consider a proper Project area and scope for its analysis, and to consider all reasonably foreseeable impacts, is especially stark given the Biden Administration's recent Executive Orders on racial equity and environmental justice.[64] Adopted in February 2023, E.O. 14091 requires all federal agencies to implement a comprehensive equity strategy "to enable the agency's mission and service delivery to yield equitable outcomes for all Americans, including underserved communities."[65] E.O. 14096, adopted in April 2023, builds on E.O. 14091 and directs agencies to not just identify and avoid but also affirmatively "address disproportionate and adverse human health and environmental effects (including risks) and hazards of Federal activities, including those related to climate change and cumulative impacts of environmental and other burdens on communities with environmental justice concerns."[66] Both

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[61] BAAQMD & WOEIP, "Owning Our Air: The West Oakland Community Action Plan," Vol. 1 (Oct. 2019) (hereinafter "WOCAP 2019"), https://woeip.org/wp-content/uploads/2020/11/WOEIP-research-Owning-Our-Air-full.pdf.

[62] Fears, D., & Muyskens, J., "City planners targeted a Black community for heavy pollution. Can the damage be undone?" *Washington Post* (May 7, 2023), https://www.washingtonpost.com/climate-environment/2023/05/07/oakland-freeways-environmental-justice/.

[63] City of Oakland, "Public Review Draft: Oakland 2045 Oakland Environmental Justice Element" (Mar. 2023) (hereinafter "Oakland 2045") at p. 2-15 & Figure EJ-8, https://cao-94612.s3.amazonaws.com/documents/EJ-Element_032123-public-review-draft_reduced.pdf.

[64] E.O. 14091; E.O. 14096.

[65] E.O. 14091, § 3.

[66] E.O. 14096, § 3(i).

of the orders require agencies to closely engage with communities to address the impacts of proposed federal actions.[67] By largely reiterating the improperly narrow analysis in the December 2021 Draft EA and ignoring comments from the public and agencies raising significant concerns with this Project, the Corps fails to comply with the E.O.s.

**Earth Justice-18**

Similarly, the Corps fails to demonstrate how the Project supports the Biden Administration's Justice40 initiative to benefit disadvantaged communities.[68] Without properly accounting for all potential impacts, the Corps also cannot identify and reduce disparate environmental burdens or implement community benefits. Indeed, the Corps appears to ignore its own "Implementation of Environmental Justice and the Justice40 Initiative" Memorandum, which states:

> In *studying, planning, designing, constructing, and operating* USACE Civil Works projects or providing assistance, USACE shall work to meet the needs of disadvantaged communities by reducing disparate environmental burdens, removing barriers to participation in decision-making, and increasing access to benefits provided by Civil Works programs to disadvantaged communities within USACE authorities.[69]

By entirely ignoring the operations phase despite repeated requests from the public and failing to consult with the West Oakland community to reduce environmental burdens, the Corps fails to "put[] the disadvantaged communities at the front and center of the [Revised Draft EA]."[70]

b. *Failure to Assess Conflicts with Federal, Regional, State, and Local Measures to Address Environmental Justice*

In addition to conflicting with federal environmental justice executive orders and agency policies, the Corps still fails to assess whether the Project conflicts with "the objectives of Federal, regional, State, Tribal, and local land use plans, policies and controls" under NEPA.[71] For example, while the Revised Draft EA now acknowledges the West Oakland Community Action Plan (WOCAP) under California Assembly Bill (AB) 617, it does not incorporate any of the WOCAP's 89 emissions reduction strategies.[72] The Corps also does not address apparent conflicts with specific strategies in the plan for truck flow, congestion, and parking, and impacts from ULCVs.[73] In fact, as reiterated by the California Attorney General, the Project's construction emissions starting in 2027 are inconsistent with the WOCAP's 2025 PM2.5 targets.[74]

**Earth Justice-19**

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[67] E.O. 14091, § 5; E.O. 14096, § 3(vii-viii).
[68] See, e.g., Revised Draft EA at 110.
[69] U.S. Dep't of Army, Memorandum for Commanding General, U.S. Army Corps of Engineers, "Implementation of Environmental Justice and the Justice40 Initiative" (Mar. 15, 2022) at 2, https://planning.erdc.dren.mil/toolbox/library/MemosandLetters/ASACW_FinalInterimEJIG_15March2022.pdf.
[70] *Id.* at 4.
[71] 40 C.F.R. § 1502.16(a)(5); *see also* 40 C.F.R. § 1506.2(d) (stating EIS must also "discuss any inconsistency of a proposed action with any approved State, Tribal, or local plan or law").
[72] See, e.g., Revised Draft EA at 37, 96-97; see generally WOCAP 2019, *supra*.
[73] See, e.g., WOCAP 2019, *supra*, at 6-3, 6-4, 6-23, 6-26.
[74] California Attorney General Comments, *supra*, at 14.

The Revised Draft EA also fails to consider the City of Oakland's 2045 General Plan Update and its Environmental Justice Element, which will implement policies and actions to reduce pollution burdens on Oakland's most vulnerable communities.[75] The Plan and EJ Element include as a goal reducing emissions from Port operations, and call out the need "to study the effects on truck flow and congestion due to increasing visits from larger container ships."[76] As discussed throughout these comments, the Revised Draft EA fails to consider these potential operations phase impacts from the Project.

**Earth Justice-20**

At the federal level, the Corps has an affirmative obligation to ensure the Port complies with Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d et seq., which prohibits entities like the Port that receive federal financial assistance from engaging in activities that subject individuals to discrimination on the basis of race, color, or national origin. Yet the Revised Draft EA still fails to provide any meaningful discussion of compliance with Title VI, or evaluate whether facilitating more visits from ULCVs will disproportionately subject communities of color near the Port to additional air pollution and serious health threats on the basis of their race. For example, recent research demonstrates that additional vessel tonnage or vessel visits to a port increases pollution concentrations for major air pollutants within a 25-mile radius, causing additional hospital visits among Black residents in particular.[77]

c. *Inadequate Cumulative Impacts Analysis*

**Earth Justice-21**

The problems in the Corps' analysis are compounded in its consideration and summary dismissal of any cumulative impacts on surrounding communities. Taking the required "hard look" at all significant environmental justice impacts under NEPA inherently requires an analysis of cumulative impacts. As discussed in our comments on the December 2021 Draft EA, communities like West Oakland are designated as disproportionately burdened precisely because of the cumulative nature of the impacts they endure. The Corps must therefore properly analyze the cumulative burdens of this Project together with the air quality, water quality, and public health risks from other reasonably foreseeable projects. These burdens extend far beyond the narrow one-mile construction radius considered in the Revised Draft EA.

**Earth Justice-22**

The cumulative impacts analysis here consists of a short table of various projects with their status. The Corps does not attempt to estimate the air quality, water quality, noise, or transportation impacts of any of these projects. Instead, the Corps claims these projects, for example, the polluting Eagle Rock facility, will actually lead to improvements for local communities, despite the fact they are mostly industrial and transportation development projects that have long plagued residents. The table also leaves out obvious projects that should be considered in this analysis, including the Schnitzer Steel facility located very near the Inner Harbor Basin that has been subject to legal challenges and intervention by the state due to its

[75] See generally Oakland 2045, *supra*.
[76] *Id.* at p. 3-19.
[77] Gillingham & Huang, "Racial Disparities in the Health Effects from Air Pollution: Evidence from Ports" (Mar. 15, 2022) at 3, https://resources.environment.yale.edu/gillingham/RacialDisparitiesAirPollution.pdf.

significant emissions.[78] The environmental impacts of these projects have already been analyzed and could have been easily factored into the Revised Draft EA.[79] The cumulative impacts of other major pollution sources in the area like the multiple freeways surrounding West Oakland also should be considered.[80] Incredibly, the table largely leaves out the emissions impacts from the Port itself on nearby communities, including its offsite activity like trucks and rail use.

d. *Inadequate Health Risk Assessment*

West Oakland's community characteristics and existing environmental burdens warrant careful consideration of potential "disproportionately high and adverse human health or environmental effects" associated with this Project.[81] The Corps, however, chose not to consider public health and safety impacts at all within the Revised Draft EA. Although a health risk assessment (HRA) is now included, the HRA suffers from the same problems as the rest of the analysis. For example, the HRA is improperly limited to construction impacts and fails to consider any of the longer-term health impacts from changes to Port operations. The construction impacts are also skewed because it presumes the use of Tier 4 engines, without analyzing the availability of these models for all the equipment types that will be used.[82] While the HRA acknowledges that risk levels could therefore be higher than modeled, the analysis stops there. **Earth Justice-23**

In addition, the Corps notes the HRA is included only "for informational purposes"[83]—the potential local health risks and hazards from increases in diesel PM, PM2.5, and toxic air contaminant emissions from either the construction or operations impacts of the Project are not factored into the decisions in the Revised Draft EA. Beyond even the construction and operation

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[78] See Cal. Office of the Attorney General, "Press Release: Attorney General Becerra Announces $4.1 Million Settlement with Schnitzer Steel for Illegally Releasing Hazardous Waste and Harmful Emissions into the West Oakland Community" (Feb. 3, 2021), https://oag.ca.gov/news/press-releases/attorney- general-becerra-announces-41-million-settlement-schnitzer-steel ("AG Press Release"); *People of the State of California, et al. v. Schnitzer Steel Industries, Inc.*, Stipulation for Entry of Final Judgment and Order on Consent, https://oag.ca.gov/system/files/attachments/press-docs/Stipulation%20for%20Entry%20of%20Final%20Judgment%20and%20Order%20on%20Consent% 20-%20People%20v.%20Schnitzer%20%282-2-21%29.pdf.

[79] See, e.g., Port of Oakland, "Eagle Rock Aggregates Oakland Terminal Project, Final Supplemental Environmental Impact Report, Vol. 1" (Nov. 2021), https://www.portofoakland.com/files/PDF/PortOak_ERA_FSEIR_Vol.1_SEIR_Nov2021_ADA.pdf; Shute, Mihaly & Weinberger, "Comments on Final SEIR for Eagle Rock Aggregates Oakland Terminal Project" (Dec. 15, 2021), https://www.portofoakland.com/files/PDF/Letter%20to%20Board%20of%20Port%20Commissioners%20 re%20Eagle%20Rock%20FSEIR.pdf; *West Oakland Environmental Indicators Project v. Port of Oakland*, Verified Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief, Case No. 22CV008905 (Mar. 24, 2022); California Attorney General Comments, *supra*, at 11; AG Press Release, *supra*.

[80] Environmental Defense Fund, *A Tale of Two Freeways* (n.d.), https://www.edf.org/airqualitymaps/oakland/tale-two-freeways.
[81] E.O. 12898, "Federal Actions To Address Environmental Justice in Minority Populations and Low- Income Populations" (Feb. 11, 1994), https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf, 59 C.F.R. § 32 (1994).
[82] Revised Draft EA, "App'x A4b: Draft Health Risk Assessment" at 23.
[83] Revised Draft EA at 159.

phases, the HRA generally fails to analyze the Project's cumulative impacts in the context of the existing pollution and threats that already overburden surrounding communities. The HRA therefore lacks the level of detail and scope needed to be meaningful in considering and affirmatively addressing health and safety risks.

### 3. Impacts on Greenhouse Gas Emissions and Climate

The Corps fails to adequately analyze reasonably foreseeable increases in greenhouse gas emissions and climate impacts stemming from the Project. The Corps does not provide adequate information to justify its assumption that larger ships will decrease the overall number of vessel trips to the Port, nor does it support the claim that vessel idle times will be reduced. Larger ships that would be accommodated by this Project will carry more cargo and will take longer to unload, spending more time in the Oakland Harbor.[84] While in the harbor, larger ships will demand larger amounts of power supplied by auxiliary engines unless the ships are successfully plugged in to shore-side power. **Earth Justice -24**

Unfortunately, shore power rates have fallen short of State regulations at the Port of Oakland for each of the past several years. The California Air Resources Board (CARB) required 80% of fleets' visits to a port to utilize shore power by January 1, 2020.[85] But so far, in 2023, only 75% of vessel calls at the Port of Oakland have successfully drawn shore power.[86] In 2022, the most recent full calendar year, only 62% of total vessel calls successfully drew shore power – nearly 20% short of the required rate two years after the compliance date.[87] Timing and crowding can prevent successful shore-power connections. Larger ships are very likely to produce crowding, meaning that even if these larger ships are able to plug in successfully, they could prevent other vessels from reaching shore-power plugs, requiring them to rely on auxiliary engines that would increase greenhouse gas emissions, as well as $NO_X$ and particulate matter (as discussed in Section I.C.1, *supra*).

Additionally, the Corps improperly relies on the Port's environmental ordinance to justify its failure to analyze greenhouse gas emissions. The ordinance in question requires tenants to plan for a conversion to zero or near-zero-emissions cargo handling equipment.[88] The ordinance was imposed by the Port on its own tenants, but does not set a date by which tenants must transition equipment to zero or near-zero emissions equipment. Nor does the ordinance commit the Port to achieving zero-emissions by a date certain. Moreover, the ordinance was not passed as a climate or greenhouse gas mitigation measure, but was instead focused on addressing air quality issues, with the intention of "promot[ing] health" and "protect[ing] and enhanc[ing] the **Earth Justice-25**

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[84] Carr Report, Exh. B at 12-13.
[85] CARB, "At Berth FAQs," https://ww2.arb.ca.gov/resources/documents/berth-faqs (accessed June 6, 2023).
[86] Port of Oakland, "Shore Power Summary, April 2023," https://www.oaklandseaport.com/files/PDF/2023-04_Oakland_Shorepower.pdf (accessed June 6, 2023).
[87] *Id.* at 5.

[88] Port of Oakland Admin. Code, Chapter 9.01; see also Port Ordinance No. 4691, "Ordinance Amending and Restating Port of Oakland Environmental Ordinance No. 4345 and Adopting the Amended and Restated Ordinance No. 4345 as Chapter 9.01 of the Port of Oakland Administrative Code" (2023).

environmental quality" of the Port.[89] The Corps cannot rely on the ordinance to absolve itself of its obligation under NEPA to study the reasonably foreseeable impacts of the Project on greenhouse gas emissions.

### 4. Impacts on Regional Wildlife

**Earth Justice-26**

Throughout its response to comments, the Corps repeatedly dismisses concerns regarding the Project's impacts on wildlife by arguing that species such as Longfin smelt, various salmonids, green sturgeon, and marine mammals are not expected to be present in the Project area.[90] While the Corps may be correct that the already-dredged area within the Turning Basins is likely not a thriving aquatic habitat, it is not the case that the waters immediately adjacent to the Project site are similarly unproductive. Aquatic species breed, spawn, rear, migrate, feed, and shelter in the waters around the Port and throughout the San Francisco Bay—waters through which ULCVs will need to travel prior to docking at the Port.

Instead of properly analyzing impacts on regional wildlife, however, the Corps downplays the Project's dredging impacts, disregards sensitive time periods for local species, and entirely ignores operational impacts such as ship strikes, noise, and oil spills.

#### a. *Failure to Analyze Impacts of Dredging on Regional Wildlife*

**Earth Justice-**

The Corps does not adequately respond to our coalition's prior comments regarding regional impacts on wildlife and water quality from dredging. The Revised Draft EA describes removal and placement of more than 2.3 million cubic yards of dredged sediment while widening the Turning Basins under its preferred alternative.[91] As we noted in prior comments, dredging resuspends sediment and associated organic material, including any contamination within the sediments. This can lead to temporary increases in turbidity and nutrients, reductions in dissolved oxygen, and/or changes in temperature and pH. These water quality impacts can harm fish, benthic animals, and marine mammals foraging in the waters immediately adjacent to the Project site.

However, the Army Corps' response to comments focuses on the lack of fish and other marine animals in the immediate Project site where the Basins are located.[92] While the Corps may be correct that the already dredged area within the Turning Basins is likely not a thriving aquatic habitat, it is not the case that the waters immediately adjacent to the Project site are similarly devoid of aquatic species. Indeed, green sturgeon and longfin smelt have critical habitat

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[89] Port of Oakland Admin. Code, §§ 9.01.010, 9.01.130.

[90] Revised Draft EA, "App'x A10c: Response to Public Comments," Comment 118c at PDF p. 15 ("Longfin smelt are not expected to be in the Project area"), Comment 120 at PDF p. 16 ("Salmonids should not be present in the Project location"), Comment 126 at PDF pp. 16-17 ("Blue and humpback whale are not expected in the immediate Project area").

[91] Revised Draft EA at 145.
[92] Revised Draft EA, "App'x A10c: Response to Public Comments", Comment 118c at PDF p. 15, Comment 120 at PDF p. 16, Comment 126 at PDF pp. 17-18.

in the San Francisco Bay, and in-water construction is a key threat to these species.[93] The Corps even identifies longfin smelt and green sturgeon, along with various salmonids, as among the fish species in the region.

As our coalition mentioned in prior comments, dredging can cause fish species to suffer gill damage, body abrasion, reduced reproductive success, reduced visibility, decreased predator avoidance, modified territoriality, altered feeding, homing behavior, and flight/avoidance response.[94] The cumulative effect of these and other stressors may lead to a host of harms, including reduced reproductive output, immunosuppression, and increased mortality. By failing to look beyond the immediate Project area, the Corps inappropriately minimizes the significance of sublethal harms to wildlife and fisheries associated with dredging. Thus, the Corps' analysis has an inappropriately narrow scope as to biological impacts. As a result, the Corps fails to disclose or analyze reasonably foreseeable impacts on regional wildlife.

Additionally, three types of marine mammals—the Pacific harbor seal, California sea lion, and harbor porpoise—are known to exist in the vicinity of the Turning Basins, and these species, too, may suffer adverse impacts from dredging.[95] Again, the Corps' response to comments largely dismisses these concerns by focusing on the lack of mammals in the Turning Basins themselves. This myopic analysis fails to consider the true ramifications of the Project. Much like with fish species, increased turbidity and dredging activity can disturb marine mammal foraging activities. Marine mammals may also be impacted by the noise of dredging, and those impacts may manifest as changes in feeding, breeding, and predator-avoidance behaviors, flight/avoidance behaviors, and changes in dive times, migration routes, and swimming speeds. The Corps must conduct a more searching analysis of potential dredging-related impacts on marine mammals, both for purposes of NEPA compliance and also to ensure compliance with the Marine Mammal Protection Act. **Earth Justice-28**

b. *Insufficiently Protective Work Windows*

**Earth Justice-29**

The Corps' reliance on "work windows" as a dredging mitigation measure to avoid species harm is misplaced. Throughout the Revised Draft EA, the Corps notes that most dredging will be conducted during a proposed window from June 1 through November 30 when certain

[93] 74 Fed. Reg. 52,299 (Oct. 9, 2009), "Critical Habitat Designation for Southern Distinct Population Segment of North American Green Sturgeon"; 87 Fed. Reg. 60,957 (Oct. 7, 2022), "Endangered and Threatened Wildlife and Plants; Endangered Species Status for the San Francisco Bay-Delta Distinct Population Segment of the Longfin Smelt"; Wenger et al., "A Critical Analysis of the Direct Effects of Dredging on Fish," 18 *Fish & Fisheries* 967 (Sept. 2017), https://onlinelibrary.wiley.com/doi/full/10.1111/faf.12218.

[94] Wenger et al., *supra*; see also Kjelland, M., et al., "A review of the potential effects of suspended sediment on fishes: potential dredging-related physiological, behavioral, and

transgenerational implications," 35 *Enviro. Systems & Decisions* 334 (2015), https://link.springer.com/article/10.1007/s10669-015-9557-2.

[95] Revised Draft EA at 54.

fish species, such as salmonids and herring, are less likely to be present.[96] However, the Corps does not clearly state whether these work windows are mandatory or merely recommended, or in what instances it might elect to work outside the designated work windows.[97] Our coalition's prior comment letter raised these concerns, but the Corps avoids providing a satisfactory response.

The Corps also failed to explain how or whether its proposed dredging activities will be modified if such species are present when the work windows open on June 1. For example, out-migrating Chinook salmon and green sturgeon may be affected by dredging activities that fall outside the proposed work window.[98] The Corps asserts that it will consult with natural resource agencies such as the National Marine Fisheries Service ("NMFS") or the United States Fish and Wildlife Service ("USFWS") as appropriate to extend work windows when the Corps believes that species are *not present*, but the Corps says nothing about how it proposes to alter activity should species *still be present* during a proposed work window.[99] The Corps fails to adequately support its conclusion that there will be no significant impacts on local species caused by the proposed dredging or in-water construction activities.

Furthermore, we reiterate our concerns that the Revised Draft EA still contains inconsistencies regarding how it selected the proper work windows for the Project. Specifically, the Revised Draft EA notes that the preferred work window for the California least tern (listed as endangered by both state and federal governments) would run from August 1 through March 15 of each year, but that time frame does not align with the proposed work windows described above (June 1 through November 30). The Revised Draft EA acknowledges that "in-water construction is proposed to occur partially outside of [the work window most suitable for California least terns] under all action alternatives."[100] These proposed work windows are going to pose potential resource conflicts, light exposure, and disorientation for the California least tern.[101] Yet, the Revised Draft EA does not address how the Corps intends to mitigate such exposure to the largest population of least terns in Northern California.[102] In its Response to Comments, the Corps states it will coordinate with the U.S. Fish and Wildlife Service on **Earth Justice-30**

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[96] See, e.g., Revised Draft EA at 175, 182, 188 ("[D]redging work window for California least tern in the project vicinity is August 1 through March 15 each year. Because in-water construction is proposed to occur partially outside of this work window (i.e., in June and July) under all action alternatives, the USACE will initiate ESA consultation with USFWS and determine appropriate minimization measures . . .").

[97] See, e.g., Revised Draft EA, "App'x A-5: Draft CZMA Consistency Determination" at A-1 (noting there may be circumstances when "in-water work must occur at times other than the approved work window").

[98] See, e.g., Revised Draft EA, "App'x A-1: Draft Biological Assessment" at 25, 27, 30-31.

[99] Revised Draft EA, "App'x A10c: Response to Public Comments," Comment 123 at PDF p. 17.

[100] Revised Draft EA at 188.

[101] See Adams, et al., "Effects of artificial light on bird movement and distribution: a systematic map." *Environ Evid* 10, 37 (2021), https://doi.org/10.1186/s13750-021-00246-8.

[102] Leu, Chelsea, "Endangered California Least Terns Thrive on Hayward's 'Tern Island'" (June 16, 2016), *Bay Nature*, https://baynature.org/article/a-tern-for-the-better/ ("[T]he Alameda tern colony is the biggest in northern California, and it's here that least terns were first spotted in the Bay Area, in the 1970s.")

impacts.[103] The Corps' response is unavailing: coordinating with other agencies on impacts to the least tern does not satisfy the NEPA requirement of disclosing all foreseeable impacts.[104]

c. *Incomplete Analysis of Ship Strikes*

In the Revised Draft EA, the Corps continues to offer an incomplete analysis of the threat that shipping traffic associated with this navigation channel poses to marine mammals. As mentioned in prior comments, ship strikes serve as a primary cause of mortality for large whales worldwide.[105] Large vessels (*i.e.,* those ≥ 80 meters) are responsible for most of the collisions leading to whale death or severe injury.[106] For imperiled populations, "death from vessel collisions may be a significant impediment to population growth and recovery."[107] San Francisco Bay is increasingly a hotspot for whale strandings, many from ship strikes.[108] Just this past May, a gray whale was killed by a combination of malnutrition and trauma caused by a collision with a maritime vessel in the San Francisco Bay.[109] The number of blue whales killed by ship collisions in the San Francisco Bay area alone exceeds the amount that federal scientists have determined is sustainable for the entire population.[110] As discussed above, the larger ships facilitated by this Project will be more deadly. **Earth Justice-31**

The Corps inappropriately obfuscates the ship strike issue by defining the Project area too narrowly. The Corps' claim that whales would "not be impacted" by the Project because "blue and humpback whales are not expected in the immediate project area" is a preposterous example of the Project's unreasonably narrow scope and failure to disclose or analyze reasonably foreseeable impacts.[111] Indeed, a recent Whale Safe study reported 544 sightings of blue, fin, and humpback whales in the San Francisco Bay Area from September – December 2022.[112]

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[103] Revised Draft EA, "App'x A10c: Response to Public Comments," Comment 123 at PDF p. 17.
[104] See 40 C.F.R. §§ 1508.8, 1508.25 (Council on Environmental Quality (CEQ) regulations requiring agencies to describe the environmental consequences of the proposed action, including direct, indirect, and cumulative effects).
[105] Cotton Rockwood, et al., "High Mortality of Blue, Humpback and Fin Whales from Modeling of Vessel Collisions on the U.S. West Coast Suggests Population Impacts and Insufficient Protection," *PLoS ONE* 12(8): e0183052 (2017); Jensen, C.M. et al., "Spatial and Temporal Variability in Shipping Traffic Off San Francisco, California," 43 *Coastal Mgmt.* 575 (2015).
[106] Jensen et al. (2015), *supra*.
[107] Rockwood et al. (2017), *supra*.
[108] Nat'l Park Serv., "Spike in Gray Whale Deaths Triggers Investigations" (June 2019), https://www.nps.gov/articles/spike-in-gray-whale-deaths-triggers-investigations.htm.
[109] Russell, Kiley, "Vessel Strike, Malnutrition Likely Killed Whale That Spent 75 Days in SF Bay," *NBC Bay Area* (May 11, 2023), https://www.nbcbayarea.com/news/local/vessel-strike-malnutrition-whale-75-days-sf-bay/3227441/.
[110] Dorman, J. et al., "2021-22 Greater Farallones & Cordell Bank National Marine Sanctuaries Advisory Councils Joint Ship Strike Working Group: Final Report," https://nmscordellbank.blob.core.windows.net/cordellbank-prod/media/docs/2021-22-joint-ship-strike-working-group-report.pdf.
[111] Revised Draft EA, "App'x A-10c: Response to Public Comments," Response 126, at PDF pp. 17-18.
[112] Whale Safe, "2022 Year in Review: A Look Back at Whales & Ships in the Santa Barbara Channel and San Francisco Region," https://whalesafe.com/2022-year-in-review-a-look-back-at-whales-ships-in-the-santa-barbara-channel-san-francisco-region/.

Additionally, the Marine Mammal Center's ongoing field observations conclude that gray whales are feeding while inside the San Francisco Bay.[113] Under the Corps' Recommended Plan, waters adjacent to and surrounding the Project area would host not just whale populations but also an increased number of ULCVs, leading to potentially devastating consequences.[114] Yet the Corps, in both the Revised Draft EA and its response to comments, ignores the impacts the Project could have, and baselessly concludes that marine mammals would not be impacted by whale strikes despite the literature that suggests otherwise.

**Earth Justice-32**

The Corps also concludes without support that whales will not be impacted by ship strikes because ULCVs will operate at slower speeds than other smaller vessels.[115] It is important to note, however, that while whales have a greater chance of surviving a strike at lower speeds, there is no absolute safe speed for vessels to travel when it comes to whale strikes.[116] Moreover, shipping companies do not always abide by voluntary speed reduction measures. According to Whale Safe, of the 735 large vessels (> 300 tons) that transited through the San Francisco Bay Area, 61.4% cooperated with vessel speed reduction measures from May 1 through December 15, 2022 (the period of peak whale abundance in the San Francisco Bay Area).[117] The Corps cannot shirk its responsibility to analyze and disclose information regarding ship strikes by simply relying on hypothetical reduced ship speeds. The Corps must conduct an analysis assessing the likelihood of ship strikes and the potential impacts on whales in and around the Project's waters.

d. *Inadequate Analysis of Noise*

**Earth Justice-33**

The Revised Draft EA fails to adequately analyze the impacts that increased vessel size may have on noise affecting local wildlife species, despite comments urging the Port to conduct such an analysis. As our coalition previously noted, the presence of larger ships will increase the levels of low-frequency noise, particularly close to major shipping lanes and ports.[118] While we acknowledge and appreciate the Corps' inclusion of an underwater noise assessment from in-water pile-driving and its potential impacts on wildlife, the Corps relies on an unsupported assumption that fish will disperse to avoid physical injury from pile-driving and its sound impacts.[119] This is misleading. Indeed, even very few pile-driving strikes can result in ruptured

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[113] Russell, *supra*.
[114] Dorman, *supra.*
[115] Revised Draft EA, "App'x A10c: Response to Public Comments," Comment 126, at PDF pp. 17-18.
[116] Kelley, D., et al., "Assessing the lethality of ship strikes on whales using simple biophysical models," *Marine Mammal Science* (2020), https://onlinelibrary.wiley.com/doi/10.1111/mms.12745.
[117] Whale Safe, *supra*; see also NOAA, "Vessel Speed Reduction," *supra*.
[118] Port of Vancouver, "2021 Haro Strait and Boundary Pass voluntary vessel slowdown" (n.d.), https://www.portvancouver.com/environmental-protection-at-the-port-of-vancouver/maintaining-healthy-ecosystems-throughout-our-jurisdiction/echo-program/projects/haro-slowdown/; Putland, R.L., et al., "Vessel noise cuts down communication space for vocalizing fish and marine mammals," 24 Global Change Biology 1708 (2018); Liu, M., et al., "Broadband ship noise and its potential impacts on Indo-Pacific humpback dolphins: Implications for conservation and management," 142 *J. Acoustical Society of America* 2766 (2017).
[119] Revised Draft EA at 187.

swim bladders and injuries for fish, including bass, salmonids, and sturgeon.[120] Ultimately, we urge the Corps to continue its analysis as applied to *all* Project-related noise impacts.

The Revised Draft EA does not look at reasonably foreseeable operational noise impacts. Specifically, and emblematic of the Corps' flawed scoping of this Project, the Corps spends little time analyzing noise impacts from the increased number of ULCVs that will visit the Port because of the Project. This is an egregious omission, given the effects that shipping noise has on aquatic species. Noise generated by commercial shipping reduces marine mammals' ability to communicate, locate prey, and navigate within their habitat, and induces behavioral changes.[121] A review of 42 studies on the effect of noise on fish suggested that the majority of fishes are sensitive to noise, including alarming impacts on foraging, predation risk, and reproductive success.[122] The Corps continues to omit disclosure of these impacts.

Instead, the Corps misconstrues our coalition's comments and dismisses concerns regarding noise impacts on local wildlife by arguing that the Project will result in fewer ship visits overall.[123] But this statement by the Corps fails to analyze or consider the noise impacts that would result from a proportionally higher number of ULCVs. Nor does this conclusion analyze whether ULCVs themselves will have larger noise impacts than smaller vessels.

The Corps states, without support, that "[l]arger vessels are not expected to generate more noise."[124] But the reports our coalition presented in our prior comments provide evidence the opposite is true. Indeed, larger vessels introduce significantly more noise into the marine environment, particularly if they have larger positioning thrusters and propulsion units.[125] As a 2018 report noted, "[l]arger vessels (exceeding 100m) typically produce louder, lower-frequency sounds than smaller boats ....."[126] The Corps has failed to respond to our coalition's comments regarding these concerns. **Earth Justice-34**

Failing to adequately analyze shipping noise in the Turning Basins—produced by larger ships in conjunction with tugboats—downplays impacts on regional wildlife, including but not limited to marine mammals, local fish, and terrestrial wildlife like avian species. Such an omission results in an EA that fails NEPA's "hard look" requirement.[127] Ships that approach and

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[120] Halvorsen, M.B., et al., "Effects of exposure to pile-driving sounds on the lake sturgeon, Nile tilapia and hogchoker," 279 *Proc. Biol. Sci.* 4705 (2012).
[121] Erbe, C., "The Effects of Ship Noise on Marine Mammals—A Review," 11 *Front. Mar. Sci.* 6 (2019).
[122] Cox, K., et al., "Sound the alarm: A meta-analysis on the effect of aquatic noise on fish behavior and physiology," 24 *Global Change Biology* 3105 (2018); Duarte, C.M., et al., "The soundscape of the Anthropocene ocean," 371 *Science* 6529 (2021) (81% and 82% of relevant studies have found significant impacts of noise on invertebrates and fish).
[123] Revised Draft EA, "App'x A10c: Response to Public Comments," Comment 127, at PDF p. 18.
[124] *Id.*
[125] *See* Kaplan, M.B. & Solomon, S., "A coming boom in commercial shipping? The potential for rapid growth of noise from commercial ships by 2030," 73 *Marine Policy* 119 (2016).
[126] Southall, B., et al., "Reducing Noise from Large Commercial Ships," *Proceedings* 58 (2018).
[127] *Cook Inletkeeper v. Raimondo*, 533 F. Supp. 3d 739, 766-68 (D. Alaska 2021) (finding agency's failure to analyze potential noise impacts from tugboats and their impacts on local marine mammal wildlife was unlawful).

use the Turning Basins will produce noise during their approach and while executing turns within the Basins, with assistance from tugboats. The Revised Draft EA estimates that underwater noise associated with ships turning in the Basins can range from 141 to 175 decibels.[128] However, the Revised Draft EA improperly dismisses those noise impacts as no different than existing vessel traffic.[129] In our coalition's prior comments, we urged the Corps to consider the noise impacts that emanate from the fact that the largest vessels (which potentially make more noise) will call on the Port more frequently. The Corps fails to do so in the Revised Draft EA and consequently must revisit its analysis regarding noise impacts on local species.

e. *Failure to Consider Greater Risk of Large Oil Spills*

**Earth Justice-35**

As noted in our coalition's prior comments, the increased presence of these larger vessels—in addition to a potential increase in the size or number of accompanying tending vessels such as tugboats—may increase the risk or severity of oil spills and other discharges.[130] This would be the case even if the Corps is correct that there will be fewer overall vessel visits. ULCVs pose different risks, purely because of their size, than the smaller ships that visit the Port more regularly. The Corps fails to analyze the consequences of these larger vessels on the likelihood and magnitude of future oil spills.

For example, ULCVs have larger fuel bunkers than smaller ships. It thus stands to reason that even larger oil spills of bunker fuel could result from those ships that will be able to visit the Port with greater frequency as a result of this Project. However, the Corps does not analyze the possibility of an increase in the risk of oil spills, or the severity and magnitude of such spills, in its Revised Draft EA, instead constraining its analysis merely to construction impacts.

The Corps' responses to comments are similarly inadequate. The Corps dismisses concerns by stating that the Project will increase navigational efficiency and thus automatically decrease hazard risks.[131] This statement fails to respond to the core concern of the comments. While it may be true that ULCVs will visit the Port with or without the Project, widening the Turning Basins will facilitate a proportionally greater number of ultra-large vessels calling at the Port. Essentially, even if the Corps is correct that the *overall* number of vessel calls will be fewer, the Project will facilitate a future in which *more ultra-large vessels* visit the Port than they would without the Project.

An increased number of ultra-large vessels coupled with their accompanying tending tugboats could increase the risks of oil spills despite any navigational efficiencies gained by widening the Turning Basins. The spills from these ships are potentially even more disastrous than those from smaller vessels because of larger bunker fuel storage capacity. As our coalition

[128] Revised Draft EA at 104 to 105.
[129] See Revised Draft EA at 177 (concluding "transport barges carrying dredge material are not expected to generate underwater noise that is different or greater than existing vessel traffic") and 252 ("[T]he noise produced by the turning activity . . . would reasonably be expected to remain very similar to noise generated by existing vessels turning.").
[130] February 2022 Coalition Comment Letter, Exh. A at 34-35.
[131] Revised Draft EA, "App'x A10c: Response to Public Comments," Comment 125 at PDF p. 17.

mentioned in prior comments, the Corps should have analyzed the severity and magnitude of such spills.

### 5. Inadequate Analysis Regarding the Handling and Placement of Dredged Materials.

**Earth Justice-36**

The Corps anticipates dredging more than 2.3 million cubic yards of sediment for this Project—but fails to offer concrete information about where nearly 95% of those sediments will go. Table 39 of the Revised Draft EA shows the Corps expects to dredge about 157,000 cubic yards of material that will be suitable for cover material at a beneficial use site: about 7% of the total amount of dredged material.[132] The Corps also indicates that it expects to dredge about 2,093,000 cubic yards of material—about 88% of the total—that will not be suitable for cover at a beneficial reuse site, but could be sufficiently uncontaminated to apply as foundation at such a site. Together, those two portions comprise approximately 2,250,000 cubic yards—about 95%—of the total amount of dredged sediment expected for this Project.[133]

The Corps' failure to identify where it will send 95% of the dredged materials violates NEPA. As we previously stated, the Corps has an obligation to provide meaningful information to facilitate public review, or to provide clarification about "why more definitive information could not be provided."[134] The Corps offers noncommittally that it might send the dredged sediments to the Montezuma Restoration site,[135] but fails to explain anywhere in the Revised Draft EA why it has not already confirmed that proposed placement location, or why it cannot do so at this time. By contrast, it has already identified specific landfills to handle the more highly contaminated, potentially hazardous wastes[136]—a task that is presumably more daunting given the potentially hazardous material.

We also have concerns about the Corps' stated intention to relocate more than 10,000 cubic yards of hazardous wastes to Kettleman Hills landfill. The communities adjacent to that landfill are predominantly Latino and disproportionately burdened by pollution.[137] They have previously opposed state and federal permits that enabled the landfill to expand.[138] We express deep reservations about the plan to export wastes from one environmental justice community to another. We urge the Corps to identify and analyze alternatives that would enable the waste to be

**Earth Justice-37**

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[132] Revised Draft EA at 145.
[133] By way of comparison, 2.2 million cubic yards is the equivalent of about 688 Olympic sized swimming pools.
[134] *Cuddy Mountain*, *supra*, 137 F.3d at 1380.
[135] Revised Draft EA at 135, 144.
[136] Revised Draft EA at 145.
[137] Bedoian, Vic, "Kettleman Hills Toxic Waste Landfill Permitted to Expand," Fresno Community Alliance (Aug. 1, 2013), https://fresnoalliance.com/kettleman-hills-toxic-waste-landfill-permitted-to-expand/.
[138] Greenaction for Health and Environmental Justice, "Kettleman City, Buttonwillow, and Out-of-State Solid Waste Landfills: Racial Discrimination, Expired Permits, Civil Rights Violations, & Regulatory Malpractice by the Department of Toxic Substances Control in California's Failed Hazardous Waste Program," (n.d.), https://bes.dtsc.ca.gov/wp-content/uploads/sites/42/2023/03/FINAL-Greenaction-and-El-Pueblo-Presentation-for-DTSC-Oversight-Board-ADA.pdf?emrc=b2cb74.

appropriately treated and managed without burdening another environmental justice community. We also note that the Corps failed to consider or analyze the reasonably foreseeable truck emissions that would be created when transporting 10,000 cubic yards of waste to a location more than 200 miles away. It also did not analyze or describe to any degree how it will safely transport the hazardous wastes to ensure they are not released in transit, either by leakage or fugitive dust, should the wastes be transported in open containers. This omission represents yet another source of reasonably foreseeable potential impacts that went unstudied in the Revised Draft EA.

Additionally, we are troubled that the Corps did not perform any sediment analysis before issuing the Revised Draft EA. Instead, it appears to be relying throughout the document on sampling conducted in the Turning Basins and adjacent to Howard Terminal more than twenty years ago, in the late 1990s.[139] By failing to provide data about the actual composition of the sediments to be dredged, the Corps makes it challenging for members of the public to provide informed comments.

**Earth Justice-38**

Finally, the Corps has not adequately discussed what measures it will take to reduce fugitive dust from the dredged sediments excavated from the Basins. It is reasonably foreseeable that dust from dried sediments could increase particulate matter emissions in a region that is already in nonattainment for $PM_{2.5}$. Equally concerning is the foreseeable possibility that dredged sediments could contain toxic elements that become aerated when dredged and left out to dry on barges. Without recent sediment sampling to indicate the sediment's composition, we cannot offer more specific commentary about the Corps' plans, but we are concerned about the lack of analysis of these possibilities. The Corps must disclose its plans regarding handling of dredged wastes and fully analyze the reasonably foreseeable possibility of fugitive dust so that meaningful mitigation measures can be selected.

**Earth Justice-39**

For all of these reasons, we urge the Corps to withdraw its Revised Draft EA and produce a full EIS that considers the handling and placement of dredged materials.

D. ***The Revised Draft EA Fails to Identify a Need for the Project***

We remain deeply concerned about the actual need for an expansion of the Turning Basins at this time. The Port's own data released in May 2023 suggests that it projects a decline in TEU throughput over the forthcoming five-year period running from 2023 through 2028.[140]

**Earth Justice-40**

Given that the Port itself is not anticipating an increase in TEU throughput in the next five years—and indeed, even projects a small decline in throughput—the Corps has not demonstrated a need for the expansion of the Turning Basins.

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[139] Revised Draft EA at 88-89; see *id.* at 90 (noting "the sediments in the study area have not yet been sampled and analyzed for this study").

[140] Board of Port Commissioners, "Development of FY 2024 Operating and Capital Budget" (May 11, 2023) at PDF p. 7 (offered as Agenda Item 4.2 of the May 11, 2023 Board of Port Commissioners Meeting and available here: https://portofoakland.legistar.com/View.ashx?M=F&ID=11952778&GUID=238BCE39-510E-4431-8976-EF20E1A8316E).

The Corps also contends that the Project will relieve inefficiencies and improve navigational safety by reducing the risk of collisions and grounding—but does not point to any historical examples in which either collisions or grounding occurred. In the absence of evidence that the Turning Basins currently pose a safety risk, the Corps should have looked more closely at the confounding risks of containerships moving through the Bay more broadly, such as the risk of collision like the 2007 Cosco Busan oil spill, in which a containership collided with the Bay Bridge, spilling 58,000 gallons of fuel onto the coastlines of the San Francisco Bay in a matter of hours.[141]

### E. *The Revised Draft EA Fails to Consider Less Impactful Alternatives*

**Earth Justice-41**

The Corps failed to consider less impactful alternatives to expanding both the Inner and Outer Turning Basins. The Corps "may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action..... "[142] Further, the Corps cannot engage in "subterfuge" in an effort to "rationalize a decision already made."[143]

Here, the Corps has improperly weighted the analytical scales in favor of its preferred approach by analyzing the application of electric dredges *only* to the analysis of widening both Basins. The Corps leaves in place the diesel-dredge option for all other alternatives, which makes the air emissions appear superficially much worse for other alternatives.[144] The Corps' approach fails to present a fair, impartial analysis. EPA identified this concern in its comments on the December 2021 Draft EA.[145] By failing to update its analysis in this Revised Draft EA, the Corps violates its obligations under NEPA.

Relatedly, the Corps has not seriously considered expanding only the Outer Basins in the Revised Draft EA. Expanding only the Outer Basins would address the Corps' stated chief concerns of enabling larger vessels to visit, while avoiding the significant landside impacts to West Oakland and Alameda. As EPA stated in its 2022 comments, pursuing an expansion of the Outer Basins "could achieve the project objective while resulting in fewer impacts to multiple resource areas (including noise, potential disturbance to water quality from contaminated dredged material, and no required trucking dredged material to an offsite landfill), higher Benefit Cost Ratio, and shorter construction duration."[146] And as BCDC noted, expansion of the Outer Basin would have the "fewest impacts to Bay resources while achieving the same goals of the project, which are to enable larger container ships to safely turn and exit the harbor."[147]

**Earth Justice-42**

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[141] Cal. Coastal Comm'n, "Oil Spills" (accessed June 14, 2023), https://www.coastal.ca.gov/publiced/oilspills.html.
[142] *League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Serv.*, 698 F.3d 1060, 1069 (9th Cir. 2012).
[143] *W. Watersheds Project*, *supra*, 632 F.3d at 491 (internal quotations omitted).
[144] Revised Draft EA at 227; *compare id.* at 228 (Table 50) *with* 229 (Table 51); see also Revised Draft EA, "App'x A4a: Air Quality Applicability Assessment," at 9-12 (Tables 8 and 9).
[145] EPA Comments, *supra*, at PDF pp. 6-7, 11.

[146] *Id.* at PDF p. 6.
[147] BCDC Comments, *supra*, at 2.

The Army Corps' lackluster Response to Public Comments reveal that it never truly considered the Outer Basins-only alternative: "Because an Outer Harbor only alternative would not maximize NED [National Economic Development] benefits, an Outer Harbor only alternative with electric dredges would not be a comprehensive benefit plan and therefore was not carried forward as such."[148] That response fails to demonstrate a reasoned consideration of an alternative that would be less environmentally impactful. The Corps' failure to consider less impactful alternatives violates its obligations under NEPA.

### F. *The Revised Draft EA Fails to Identify Reasonably Available Mitigation Measures*

For the reasons outlined above, it is reasonably foreseeable that the expansion of the Turning Basins will have potentially significant impacts—and therefore, the Corps was obligated to produce a complete EIS.[149] As the California Attorney General noted in its comments, the Army Corps' own implementing regulations for NEPA state that feasibility reports for authorization and construction of major projects "normally requir[e] an EIS."[150] By choosing not to produce a full EIS, the Corps disregarded its own regulations here.

In an EIS, the Corps must analyze "[m]eans to mitigate adverse environmental impacts."[151] "Mitigation must be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated. A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA."[152] "[B]road generalizations and vague references to mitigation measures" are insufficient to satisfy this requirement.[153] Furthermore, "omission of a reasonably complete discussion of possible mitigation measures would undermine the 'action-forcing' function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects."[154]

Here, given that air quality remains a serious problem for this region, the Corps should have undertaken a much more careful analysis of reasonable measures to reduce particulate matter and $NO_X$ emissions, particularly given the region's nonattainment status and West Oakland's disproportionate air pollution burden.[155] While we appreciate that the Corps is considering implementing air monitors per its Response to Comments, we reiterate our request that the placement and operation of all such monitors be decided only after collaborative community engagement.

**Earth Justice-43**

[148] Revised Draft EA, "App'x A10a: Response to Public Comments," Comment 4 at PDF p. 10.
[149] See 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1501.3(b) (listing factors for weighing significance); *Bark v. U.S. Forest Service*, 958 F.3d 865, 868, 873 (9th Cir. 2020).
[150] California Attorney General Comments, *supra*, at 5, n. 16; see 33 C.F.R. § 230.6(a).
[151] 40 C.F.R. § 1502.16(a)(9).
[152] *Cuddy Mountain, supra,*137 F.3d at 1380 (citations omitted).

[153] *Id.*
[154] *Methow Valley, supra*, 490 U.S. at 352.
[155] See February 2022 Coalition Comment Letter, Exh. A at 24 (discussing Alameda County's status in marginal nonattainment for national 8-hour ozone 2008 and 2015 standards, and moderate nonattainment for 24-hour $PM_{2.5}$ 2006 standards).

To address the persistent air pollution crisis in this region, we urge the Corps and the Port to consider requiring the use of Tier IV tugs equipped with diesel particulate filters for all transportation of electric dredges and for the removal of dredged material. This type of measure would fall within the Port's contracting authority if this Project should proceed to the point where the Port is soliciting bids for the construction. Requiring Tier IV tugs would also meaningfully reduce emissions for the construction portion of the Project, based on the number of hours of operation that tugs are expected to be in service for this Project, according to the Air Quality Applicability Assessment in Appendix A4a.

The Corps and the Port should also seriously examine the possibility of requiring the use of electric tugs, which will be in use at other California ports this year and would help mitigate the impacts of this Project.[156]

We also wish to draw the Corps' attention again to the list of mitigation measures we identified in our February 2022 Coalition Comment Letter. As discussed extensively above, the Corps scoped this Project inappropriately, which is an error that pervades the entire analysis in the Revised Draft EA. Because of that error, the Corps incorrectly states that "the Project will not induce growth" and therefore that "mitigation measures for growth inducement are not appropriate."[157] The Corps' analysis is flawed. A full EIS, with appropriate mitigation measures for each reasonably foreseeable and significant impact, is required here.

### G. *The Revised Draft EA Fails to Coordinate NEPA and CEQA Review*

We are increasingly concerned about the Corps' insistence on moving forward with the NEPA process even though the Port has not yet released a draft environmental impact report pursuant to CEQA. The Corps states in its Response to Public Comments that it cannot combine its NEPA process with CEQA, since the Port is not expected to release its CEQA document until late 2023, and "[s]uch a delay would jeopardize USACE's ability to timely request authorization for the proposed Project."[158] The Corps' concerns about the timeline do not stand up to scrutiny, and its decision to push forward will result in inconveniences and inefficiencies that should be avoided. **Earth Justice-44**

The Corps' decision to push forward with separate federal environmental review under NEPA—while CEQA review is forthcoming this fall—is extremely inefficient. It also conflicts with guidance issued by the Council on Environmental Quality, as we noted in our February 2022 Coalition Comment Letter.[159] Further, the Corps' decision produces disjointed opportunities for stakeholders to provide input and participate in the decision-making process. This lack of coordination results in incomplete information sharing, confusion, and limited opportunities for comprehensive public participation. Impeding public participation is particularly concerning given that this Project impacts disproportionately burdened communities. Additionally, inhibiting engagement with communities contradicts the goals of the Biden **Earth Justice-45**

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[156] "Crowley's Ewolf Tugboat Gets Tough on Greenhouse Gas Emissions" (Apr. 14, 2023), https://thebusinessdownload.com/crowleys-ewolf-tugboat-gets-tough-on-greenhouse-gas-emissions/.

[157] Revised Draft EA, "App'x A10c: Response to Public Comments," Comment 131a at PDF p. 19.

[158] *Id.*, Comment 97 at PDF p. 8.
[159] February 2022 Coalition Comment Letter, Exh. A at 48-49; *see* 40 C.F.R. § 1506.2(b), (c).

Administration's recent E.O.s, which establish stricter public participation requirements for federal actions that impact frontline communities.[160]

Equally concerning, pursuing separate NEPA and CEQA processes fragments the Corps' and the Port's obligation to identify appropriate mitigation measures. Without integration, mitigation measures will be addressed separately in NEPA and CEQA processes, which may not adequately address cumulative impacts or achieve the most effective and coordinated mitigation strategies. For example, the Corps identified certain adverse air quality impacts that will require mitigation, such as anticipated daily $NO_X$ emissions exceedances, but deferred taking any action on the theory that the Port (as the non-federal sponsor of the Project) would handle the issue in its CEQA process.[161] The Army Corps is unlawfully avoiding its responsibility to conduct meaningful environmental review and mitigation. **Earth Justice-46**

Furthermore, separating the federal environmental review under NEPA from the state CEQA process leads to redundant analyses by separate entities, increasing the public taxpayer dollars that are being spent on this process. Embarking on separate processes also results in inconsistencies and conflicts between federal and state environmental requirements. This can lead to confusion and disagreements among agencies, stakeholders, and project proponents, potentially hindering the decision-making process and project progress. For example, if the Port identifies additional mitigation measures during its forthcoming CEQA review but assigns responsibility for those measures to the Corps, that could require the Corps to revisit its NEPA documentation or possibly even produce supplemental analysis. In effect, separating NEPA and CEQA processes may produce the very delay that the Corps claims it is trying to prevent by proceeding separately.

We urge the Army Corps to withdraw the Revised Draft EA and develop a full draft EIS for public review, on a timeline that would run concurrently with the Port's forthcoming CEQA process, to enable members of the public to participate more meaningfully and efficiently in both processes.

### H. *The Army Corps Did Not Provide Adequate Opportunity for Meaningful Stakeholder Engagement*

**Earth Justice-47**

The Corps' public engagement efforts on this Project have been deficient. As we previously explained, incorporating and inviting public participation into the government's environmental decision-making is a core element of the NEPA process. Furthermore, CEQ regulations state that agencies must "[m]ake diligent efforts to involve the public" when implementing NEPA.[162] The Corps has failed to comply with NEPA or its implementing regulations here.

Here, the Corps released its Revised Draft EA, comprising over 1,200 pages of material, for only a 45-day comment period. After repeated requests by members of the community to

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[160] See Section I.C.2.a, *supra* (discussing E.O. 14091 and E.O. 14096).
[161] Revised Draft EA at 226; see also *id.* at 137 (postponing action on mitigation measures for eelgrass); 260 (postponing action on mitigation measures for traffic noise).

[162] 40 C.F.R. § 1506.6(a).

extend the deadline, and the submission of over 1,000 public comments, the Corps extended the submission deadline for the Project by only 4 days, which does not reflect genuine engagement with community concerns. (We are attaching as **Exhibit C** a series of emails outlining the requests for an extension that we submitted.)

The Corps offered a weak explanation for its paltry 4-day extension: it stated in an email that the updates in the Revised Draft EA were outlined on page vi of the Revised Draft EA.[163] That assertion neglects to consider that the Corps made global updates throughout nearly every section of the Revised Draft EA. As a result, members of the public were forced to engage in a careful comparison of the now-outdated December 2021 Draft EA with the present Revised Draft EA. The Corps did not offer a redline version to track changes from former to present, which made review substantially more challenging. And the Revised Draft EA comes with 26 appendices, whereas the original draft offered only 8 appendices. In sum, the Corps released a large quantity of material for review in a very short window of time, and failed to respond **Earth Justice-48** adequately to reasonable requests for an extension. The Corps' failure to offer adequate time for review fails to conform with NEPA or its implementing regulations.

The Corps also offered only a handful of poorly orchestrated public engagement meetings—many of which were plagued with technical difficulties—interspersed with long periods of silence in the past year.[164] Further, the Corps failed to indicate on its public-facing website at any point before June 16, 2023 whether the Revised Draft EA or its many supporting appendices were offered in Spanish or Cantonese, despite stating that it would do so in its Response to Comments.[165] The Corps' silence has left community members uninformed about whether and on what terms the Project will move forward.

Furthermore, we are troubled by the Corps' apparent decision in the Revised Draft EA to delay public review of sediment sampling until a later phase of this Project.[166] The Corps should have performed the sampling before issuing any NEPA compliance documentation, so that members of the public could consider and comment as part of a comprehensive environmental analysis, rather than as a discrete, isolated commenting process.

Finally, as noted in Section I.G above, the Corps' decision to proceed with its NEPA analysis separate from review under CEQA likewise reflects a failure of public engagement: it will require members of the community to review separate, lengthy environmental documents, and it fragments the Corps' and the Port's obligations to identify appropriate mitigation measures.

In sum, the Corps has failed to meet its obligations under NEPA to provide adequate opportunities for public comment on a project that will foreseeably have significant local and environmental impacts.

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[163] See Exh. C at 1.
[164] See Exh. C at 2-3.

[165] See generally https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Current- Projects/Oakland-Harbor-Turning-Basins-Widening/ (last accessed June 15, 2023).
[166] See generally Revised Draft EA at 223-224.

## *CONCLUSION*

These comments outline our principal concerns with the Revised Draft EA. Now that the Army Corps is on notice of these concerns, it has an opportunity to revisit this Project with principles of environmental justice and equity in mind, and it should seize the chance to do so now. We urge the Army Corps to withdraw the flawed Revised Draft EA and undertake meaningful, sustained public engagement to listen, consider, and respond to the chorus of equity-based and environmental concerns about this Project. The Corps must develop a full draft EIS for public review that properly scopes the Project in the context of ongoing Port operations. It must disclose and analyze all of the reasonably foreseeable impacts to air quality and climate, environmental justice communities, wildlife and the San Francisco Bay as described above—and it must undertake careful analysis of meaningful mitigation measures should the Project go forward. Finally, we urge the Corps to release a draft EIS on a timeline that would run concurrently with the Port's forthcoming CEQA process, to enable members of the public to participate more meaningfully and efficiently in both processes.

Thank you for your consideration of these comments. We would welcome the opportunity to engage with the Army Corps further. You may contact Marie Logan at mlogan@earthjustice.org and Michelle Ghafar at mghafar@earthjustice.org with any questions about this submission.

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*INDEX OF ATTACHMENTS IN SUPPORT OF COMMENTS*

*We submit the following documents into the record regarding the Oakland Harbor Turning Basins Widening Project together with our June 16, 2023 comments. All attachments listed below are viewable and downloadable at the following link:*

https://earthjustice.sharefile.com/d-s16b9a8a485b34e04acc7c83d4b9edd14

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EXHIBIT A

*VIA ELECTRONIC SUBMISSION*

February 14, 2022

Mr. Eric Jolliffe, Environmental Planner
U.S. Army Corps of Engineers 450
Golden Gate Ave, 4th Floor San
Francisco, CA 94102
OaklandHarborTurningBasinsStudy@usace.army.mil

RE: Comments on Oakland Harbor Turning Basins Widening Navigation Study; Draft Integrated Feasibility Report and Environmental Assessment

Mr. Jolliffe:

West Oakland Environmental Indicators Project ("WOEIP"), Earthjustice, Sierra Club, Union of Concerned Scientists, and Center for Biological Diversity submit this letter to comment on the U.S. Army Corps of Engineers' issuance on December 17, 2021 of a Draft Integrated Feasibility Report and Environmental Assessment ("Draft Report") for the widening of the Oakland Harbor Turning Basins (the "Project"). The Port of Oakland (the "Port") is the non-federal sponsor of the project and will be a 50% cost- share partner together with the Army Corps for the Project.

The undersigned organizations have serious concerns about the Army Corps' failure to comply with the National Environmental Policy Act ("NEPA") and the Clean Water Act ("CWA") in issuing the Draft Report. The Army Corps has mischaracterized activities that could facilitate a major expansion at the Port as a mere construction project, which creates errors and omissions of analysis that pervade the entire Report.

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By exploring only the hyper-local impacts of construction, the Draft Report fails to adequately analyze the potential environmental justice impacts that expanded freight throughput could have on the local community, which is already disproportionately impacted by pollution and heavy industrial activity. The Draft Report also fails to analyze the operational impacts that an expansion of the Turning Basins could have on air quality, climate change and greenhouse gas emissions, water quality, and impacts to local species and marine mammals—instead dismissing all of these impacts as insignificant in an unsupported Finding of No Significant Impact ("FONSI").

Furthermore, the Draft Report fails to clearly identify the need for the Project at this time, and fails to propose meaningful mitigation measures or reasonable alternatives to the Project. It also inexplicably segments out NEPA compliance from a forthcoming CEQA process that the Port will lead, thereby depriving members of the public of the opportunity to provide meaningful and informed comments. The Draft Report also fails to comply with the Clean Water Act. We request that the Army Corps address the significant flaws and omissions within the Draft Report, as described in detail below.

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## I. The Draft Report Fails to Comply with the National Environmental Policy Act

The Draft Report contains significant flaws and omissions, and fails to comply with NEPA. The central flaw in the Draft Report is the Corps' unsubstantiated conclusion that the environmental impacts of the Project will be exclusively generated by construction activity.

This Project is much larger than a mere construction project: it will remove nearly 2 million cubic yards of dredged and excavated material over 2.5 years, enable dramatically larger vessels to call on the Port of Oakland with greater frequency, and could fuel a major growth in cargo volume, which would produce concomitant increases in truck traffic, marine vessel traffic, and other significant impacts on the environment and the local community.

The last time the Port and the Army Corps seriously evaluated the environmental impacts of expanding the Oakland Harbor Turning Basins ("Turning Basins") was in 1998.[1] At that time, the Port and the Corps anticipated that the largest deep draft vessel expected to be using the Basins—called a "design vessel"—was a container ship 1,138 feet in length, with a capacity to carry 6,500 shipping containers known as twenty-foot equivalent units ("TEUs").[2]

Today, the Corps anticipates a design vessel "with nearly triple the capacity of the original design vessel," with a length of 1,310 feet and capacity to carry 19,000 TEUs.[3] If vessels of this new size are to be calling on the Port more frequently, as the Draft Report predicts,[4] then the Port will have the ability to dramatically expand its cargo throughput capacity.

But the Corps never analyzed in the Draft Report whether that reasonably foreseeable outcome—namely, expanding cargo throughput capacity—would occur at all.[5] Instead, the Corps categorized the expansion of the Turning Basins in this Report as a mere construction project with only local impacts, and it improperly elected to

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1 Port of Oakland & U.S. Army Corps of Engineers, "Oakland Harbor Navigation Improvement (-50 Foot) Project, Final Feasibility Study" (May 1998).

2 *Id.* at 5-4 to 5-15.

3 See Draft Report, pp. ii-iii.

4 See Draft Report, p. 100.

5 See Draft Report, p. 130 ("[O]perational effects associated with freight volumes . . . are not discussed further in this analysis.").

produce an Environmental Assessment ("EA") and a FONSI instead of a full Environmental Impact Statement ("EIS"). The Corps' Draft Report fails to adequately analyze the potential for significant impacts that this Project may produce.
Furthermore, the Corps' FONSI is arbitrary and capricious for relying on an inadequate EA.

NEPA requires federal agencies to prepare an EIS for all "major Federal actions significantly affecting the quality of the human environment."[6] In other words, "[a]n EIS must be prepared if substantial questions are raised as to whether a project may cause significant degradation of some human environmental factor. To trigger this requirement, a plaintiff need not show that significant effects will in fact occur, but raising substantial questions whether a project may have a significant effect is sufficient."[7]

When a court reviews an agency's decision to issue a FONSI, and thus not to prepare an EIS, "the arbitrary and capricious standard under the [Administrative Procedure Act] requires a court 'to determine whether the agency has taken a "hard look" at the consequences of its actions, based [its decision] on a consideration of the relevant factors,' and provided a 'convincing statement of reasons to explain why a project's impacts are insignificant.'"[8]

As described below, this Project will significantly affect the human environment in communities near the Port, and the Army Corps failed to take a hard look at the consequences of expanding the Turning Basins. The undersigned organizations urge the Corps to withdraw its deficient EA and unsupported FONSI, and instead prepare a full EIS that provides adequate opportunity for public comment.

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6 42 U.S.C. § 4332(C).

7 *Montana Envtl. Info. Ctr. v. U.S. Office of Surface Mining*, 274 F. Supp. 3d 1074, 1099 (D. Mont. 2017), *amended in part, adhered to in part*, 2017 WL 5047901 (D. Mont. 2017) (citing *Ocean Advocates v. U.S. Army Corps of Eng'rs,* 402 F.3d 846, 864–65 (9th Cir. 2005)).

8 *Montana Envtl. Info. Ctr.*, 274 F. Supp. 3d at 1099 (citing *Barnes v. U.S. Dept. of Transp*., 655 F.3d 1124, 1132 (9th Cir. 2011)).

A. ***The Scope of the Project Is Too Narrowly Defined***

The Draft Report is misleading because it defines the scope of the Project far too narrowly as a construction activity, rather than a project that has the potential to dramatically expand Port cargo capacity. NEPA requires that an agency must provide a complete and accurate description of a proposed federal action.[9] Here, the Corps and the Port have limited the scope of the Project to the dredging and construction activities themselves, ignoring the significant impacts that could be a predictable outgrowth from completion of the Project.

Rather than acknowledge that widening the Turning Basins could foreseeably induce increased cargo volume and fuel the ongoing expansion of the Port's import and export activity, the Draft Report makes two invalid assumptions: (1) that dredging and construction activity will be the primary sources of environmental impact, and (2) that the Project will not have any effect on expansion of cargo volume throughput at the Port. The Draft Report fails to substantiate or analyze either of these assumptions.[10] Based on these flawed assumptions, the Draft Report analyzes the physical boundaries of environmental impacts within no more than a one-mile radius extending from the center of each of the two circular Turning Basins.[11]

The Project's defined scope in the Draft Report is inappropriate because it ignores the reasonably foreseeable possibility that the widening of the Turning Basins could fuel an increase in vessel traffic by larger ships, resulting in increased cargo volume shipping activity to and from the Port, and therefore affecting an area well beyond the immediate radius of the Basins themselves. The Draft Report assumes that callings by larger ships would result in "operational efficiency gains" as well as "greenhouse gas emissions reductions,"[12] and also that bringing larger ships would

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9 *See, e.g., Aberdeen & Rockfish R.R. Co. v. Students Challenging Regulatory Agency Procedures*, 422 U.S. 289, 322 (1975) ("In order to decide what kind of an environmental impact statement need be prepared, it is necessary first to describe accurately the 'federal action' being taken.").

10 See, e.g., Draft Report, p. 130.

11 See Draft Report, pp. 24-26; see also p. 130 ("The potential for *construction activities* to result in adverse environmental justice impacts depends on the geographic relationship of the construction impacts to the environmental justice communities of concern.") (emphasis added); see pp. 84-85 (analyzing air quality impacts only within 2,000 feet of the Turning Basin boundaries rather than throughout the West Oakland community).

12 Draft Report, p. 125.

"increase the efficiency of operations" and "would not change cargo throughput" at the Port.[13] But the Corps failed to adequately analyze or support any of those assumptions.

The Army Corps should redefine the scope of the Project and produce a full EIS that analyzes all of the potentially significant impacts that could flow from widening of the Turning Basins, including the possibility of an increase in cargo handling volume at the Port, as further described in Section I.B.1 below.

### B. *The Draft Report Fails to Adequately Analyze Numerous Significant and Cumulative Impacts of the Project*

NEPA requires that agencies take a "hard look" at the environmental impacts of their actions before the actions occur.[14] "General statements about 'possible' effects and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive information could not be provided."[15] The "'hard look' 'must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made.'"[16]

The Draft Report fails to take a hard look at many direct, indirect, and cumulative impacts of the proposed action to widen the Turning Basins. Analysis of all the reasonably foreseeable impacts is a crucial aspect of an agency's compliance with NEPA before it may pursue any federal action. The Draft Report was prepared under the NEPA guidelines issued by the Council on Environmental Quality ("CEQ") by the Trump Administration in 2020.[17] Although the 2020 CEQ guidelines eliminated the express mandate to consider cumulative impacts, the Biden Administration's CEQ has proposed to restore the requirement for a cumulative impacts analysis as an essential component of NEPA review.[18] Furthermore, even the currently applicable 2020 regulations require agencies to take a hard look at all potential effects of a project that "are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives."[19] The Corps has failed to examine reasonably foreseeable impacts here.

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13 Draft Report, p. 183.

14 *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

15 *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1380 (9th Cir. 1998).

16 *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 491 (9th Cir. 2011).

17 See Draft Report, p. 1.

18 86 Fed. Reg. 55,757 (Oct. 7, 2021).

19 40 C.F.R. § 1508.1(g); see 40 C.F.R. § 1501.2(b)(2); see *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 374 (1989).

### 1. Failure to Disclose or Analyze the Potential for Expanded Freight Activity

The Draft Report fails to adequately analyze whether widening the Turning Basins could reasonably result in increased freight volumes flowing through the Port of Oakland and impacting nearby communities. The Corps is legally required under NEPA to disclose the reasonably foreseeable impacts that could result from accommodating larger ships, to allow for an honest and informed decision-making process.[20] Specifically, NEPA requires agencies to identify their methodologies, indicate when necessary information is incomplete or unavailable, and acknowledge scientific disagreement and data gaps.[21] The Corps' review must be thorough and the agency may not "sweep[] negative evidence under the rug."[22]

Here, the Corps does not deny that widening the Turning Basins will increase the number of ultra-large ships calling at the Port. "Widening the turning basins would allow for more efficient operation of the vessels within the Oakland Harbor and for the ULCVs [ultra-large container vessels] to call the Port of Oakland *more frequently*."[23]

But in spite of that admission, the Draft Report intentionally omits any analysis of the "operational effects associated with freight volumes" caused by widening the Turning Basins.[24] The Draft Report states without analysis that "the action alternatives would not change the projected overall volumes of freight that would come into the

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[20] See 40 C.F.R. § 1500.1 (describing purpose of NEPA to "provide for informed decisionmaking" by federal agencies); see also *Lands Council v. Powell*, 395 F.3d 1019, 1027 (9th Cir. 2005) (agency violates NEPA by failing to provide "sufficiently detailed statement of environmental impacts and alternatives" for the public "so as to permit informed decisionmaking"); *City of Davis v. Coleman*, 521 F.2d 661, 674 (9th Cir. 1975) (rejecting agency's assertion in NEPA analysis that a freeway improvement project was merely an accessory to "inevitable industrial development").

[21] 40 C.F.R. §§ 1502.21, 1502.23.

[22] *Nat'l Audubon Soc'y v. Dep't of the Navy*, 422 F.3d 174, 194 (4th Cir. 2005).

[23] See Draft Report, p. 100, emphasis added. The Draft Report identifies ULCVs as Post-Panamax Generation III and IV vessels with a capacity between 9,901 and 23,000 TEUs. See Draft Report, p. 14. See also Draft Report, p. 102 (explaining that a decision to forego widening of the Basins would result in *fewer* ultra-large container vessels than would otherwise call at the Port "if the turning basins had been widened"); see also *id.*, p. 94.

[24] Draft Report, p. 130.

Port."[25] It also asserts that the Project "would not change cargo throughput."[26] The Draft Report also assumes without adequate analysis that (1) a transition to larger vessels will result in a reduced number of voyages over time,[27] (2) relying on larger vessels will reduce emissions due to reduced transit time, thereby resulting in environmental benefits,[28] (3) transitioning to larger vessels would produce operational efficiency gains and therefore reduce greenhouse gas emissions,[29] and (4) transitioning to larger vessels would reduce delays and vessel idling.[30] The Corps fails to base those assertions and conclusions on data or reasoned analysis.

The Draft Report lacks analysis about whether widening the Turning Basins might result in "debottlenecking" the Port's cargo throughput, or alternatively even inducing growth in cargo throughput over time. The U.S. Environmental Protection Agency ("EPA") defines "debottlenecking" as "[a] change in production equipment or processes that frees up additional production capacity up or down-stream of the equipment or process."[31] In the context of the Clean Air Act, "[a]ssessing debottlenecking impacts may be important when calculating emission increases
..... "[32]
So too here. Under NEPA, the Army Corps should have analyzed whether a bottleneck exists at the Port, such that expanding the Turning Basins would foreseeably free up additional flow-through capacity of cargo at the Port and cause emissions increases from the various emission sources at the Port—including, but not limited to, cargo handling equipment, truck and rail traffic, and the vessels themselves.

Furthermore, the Port failed to consider the alternative scenario that could also cause significant and foreseeable impacts: namely, that expanding the width of the Turning Basins could itself *induce* growth in cargo throughput over time. Failure to analyze a project's probable impact on growth violates NEPA.[33] The Port of Oakland has itself already observed in its 2020 "Emissions Inventory Report" that the trend of visitation by ever-larger ships correlates with a "gradual increase in annual TEU [cargo]

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[25] Draft Report, p. 130.

[26] Draft Report, p. 183.

[27] See Draft Report, pp. 14, 101-02.

[28] Draft Report, p. 94.

[29] Draft Report, p. 125.

[30] Draft Report, p. 183.

[31] Clean Air Act Handbook Appendix B, Glossary (2021).

[32] *Id.*

[33] See, e.g., *City of Davis v. Coleman*, 521 F.2d 661, 680-681 (9th Cir. 1975).

throughput."[34] And existing economic data and emerging research suggest that ports that expand their capacity to receive ultra-large container ships may experience a variety of economic pressures to expand operations, many of which produce adverse environmental impacts. For example, a 2014 report by the Port of Long Beach's acting deputy executive director and chief operating officer concludes: "[T]he trend toward larger vessels will have significant implications for ports that compete to service them as well as for the land side warehouse, trucking and rail operations that must accommodate an increase in volumes."[35] More recently, a 2021 study by Jungen *et al.* discussing the rise of ultra-large container vessels concluded, based on practical observations and empirical studies, that ultra-large container vessels experience "significantly longer port stay times" compared to smaller vessels, which in turn puts "enormous pressure on terminal operators to increase handling efficiency."[36] One way operators may handle such pressure is by increasing reliance on cargo handling equipment, and in particular, by increasing "crane intensity": the number of cranes deployed per calling vessel.[37] That research has already borne out in Florida, where Port Miami reportedly "raced" to replace its crane equipment to be ready to handle an influx in ultra-large "post-Panamax" vessels alongside a planned dredging project that would deepen its shipping canal.[38] Thus, existing research shows it is reasonably foreseeable that callings by ultra-large container ships could increase pressures on local Port-side infrastructure.

Further, callings by ultra-large container ships also increase traffic flow to and through ports and nearby communities. The Port of Oakland found in its 2020 Emissions Inventory Report that even a "minimal (1.7%) increase in TEU throughput"

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[34] "Port of Oakland 2020 Seaport Air Emissions Inventory Final Report" (Nov. 2021) at p. 24, https://www.portofoakland.com/files/PDF/Port%20Oakland%202020%20Emissions%20Inventory%20Final%20Report.pdf.

[35] Dr. Noel Hacegaba, "Big Ships, Big Challenges: The Impact of Mega Container Vessels on U.S. Port Authorities" (June 30, 2014), https://www.supplychainbrain.com/ext/resources/secure_download/KellysFiles/WhitePapersAndBenchMarkReports/PortofLongBeach/Hacegaba_PPM_PAPER_7_30_14.pdf.

[36] Hendrik Jungen, et al., "The Rise of Ultra Large Container Vessels: Implications for Seaport Systems and Environmental Considerations," *Dynamics in Logistics* 249-275 (2021) at pp. 258-59, https://link.springer.com/chapter/10.1007/978-3-030-88662-2_12.

[37] *Id.*

[38] "PortMiami Upgrades Cranes in Race for Giant Cargo Ships," *ColumbusCEO* (Oct. 7, 2013), https://www.columbusceo.com/story/business/2013/10/07/portmiami-upgrades-cranes-in-race/22907038007/.

between 2017 and 2020 produced a "roughly 30% increase in reported truck activity (i.e., trips)."[39] Complementing that finding, the Jungen *et al.* study described in the previous paragraph found a relationship between the number of containers handled per port call (also known as "call size") and coastal road traffic, apparently by trucks transporting the cargo flowing to and from the ultra-large vessels calling on local ports.[40] "Especially ports with a high modal share of road transportation show increased gate congestion in relation to arrivals of larger vessels."[41] In other words, as the number of containers per vessel goes up, so too does the local truck traffic. These data are further corroborated by a recent short paper issued by the California Air Resources Board on the emissions impacts of recent congestion at California ports, which noted the strong correlation between increases in cargo imports, traffic congestion at ports, and resulting regional air pollution.[42]

Thus, it is reasonably foreseeable that widening the Turning Basins could expand cargo throughput and cause temporal spikes in cargo handling and traffic flow to and through the local community when such vessels call on the Port, with resulting environmental impacts. And if ultra-large vessels call on the Port more frequently as a result of the expansion of the Turning Basins, it also stands to reason that there could be a commensurate increase in cargo throughput flowing through the Port of Oakland.
After all, the expansion of the Turning Basins will enable container ships—up to *three times* larger in terms of capacity than the vessel size the Corps studied in 1998—to call at the Port more frequently, by the Corps' own assessment. The Corps failed to analyze the potential for expansion of Port operations at any length in the Draft Report, and in fact explicitly disavowed its responsibility to do so.[43] The Corps' omission of that analysis represents a failure to comply with NEPA.

The Corps' Draft Report also makes internally inconsistent assumptions regarding forecasted growth in cargo throughput at the Port. For example, the Draft Report concludes that a 2.1% average annual increase in TEU volumes is "expected to persist" through 2050,[44] even though data in the Draft Report from the last decade (2010

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[39] *Id.* at 64; see *id.* at p. 84.

[40] Hendrik Jungen, et al. (2021) at pp. 258-60.

[41] *Id.* at p. 261.

[42] See Cal. Air Resources Board ("CARB"), "Emissions Impacts of Recent Congestion at California Ports" (Sept. 13, 2021), https://ww2.arb.ca.gov/sites/default/files/2021-09/port_congestion_anchorage_locomotives_truck_emissions_final_%28002%29.pdf.

[43] See Draft Report, p. 130.

[44] See Draft Report, pp. 95, 101.

to 2020) shows almost no growth in imports and exports at the Port.[45] The Corps' conclusion that growth is inevitable conflicts with the data the Port provided.
Meanwhile, separate analysis conducted by the Port indicates that it anticipates a much larger rise in growth of between 2.4 to 3.0% in the coming years.[46] The Corps failed to reconcile these inconsistencies in growth projections and increases in cargo volume, and simultaneously ignored the reasonably foreseeable ways in which this Project could induce future growth at the Port, as described above.

Furthermore, the Army Corps failed to consider whether the potential changes to Howard Terminal might affect the Port's operations. The Draft Report notes that widening the Turning Basins would result in the loss of 10 acres of fast land from the 50-acre Howard Terminal site.[47] The Army Corps did not discuss whether the loss of 20% of that site's land (which the Port presently uses for truck parking and container vessel storage) could impact the Port's ability to handle bottlenecks or additional cargo from the ultra-large vessels that would be visiting more frequently after the widening of the Turning Basins. It also failed to contextualize potential changes to the Howard Terminal site in relation to potential plans to construct a ballpark on that site, and to discuss whether removing land from the Howard Terminal site to facilitate expansion of the Turning Basins would affect the ongoing CEQA process for the potential ballpark. The Army Corps' failure to analyze the Project in the context of present and future uses of Port property violates NEPA.

In sum, the Army Corps should have studied the degree to which the expansion of the Turning Basins will further expand the Port's capacity to bring in bigger ships and process more cargo, and it also should have performed a more thorough analysis of forecasted growth in cargo volume at the Port. At worst, the Project could foreseeably result in an expansion of operational activity in a socioeconomically disadvantaged region that is already disproportionately burdened by pollution and traffic. Such an expansion could foreseeably facilitate more callings by larger ships that carry more cargo and will take longer to unload, spending more time at the Port, and require more

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[45] See Draft Report, Appendix C, pp. 50-51.

[46] See, e.g., Starcrest Consulting Group LLC, Technical Memorandum MAQIP Update – Emissions Forecast and Potential Additional Reduction Strategies (hereinafter "MAQIP Update") (July 2018) at p. 4, https://www.portofoakland.com/files/PDF/WV%20 FINAL%20POAK%20Task%20V%20Technical%20Memo%20(13%20July%2018)scg.pdf.

[47] Draft Report, p. 18.

cargo handling equipment, rail, and truck visits to handle larger cargo loads.[48] The Army Corps failed to analyze or disclose these reasonably foreseeable outcomes in the Draft Report. The Corps must commit to developing a full EIS that adequately analyzes the impacts of expanded operations, in place of the flawed Environmental Assessment and arbitrary FONSI it has offered here.

### 2. Failure to Analyze Environmental Justice Impacts to Communities Near the Port

Environmental justice communities that surround the Port of Oakland will be burdened by the Project. In particular, the adjacent community of West Oakland experiences disproportionate environmental and public health harms and risks due to proximity to the Port. Pollution from trucks, trains, and ships associated with the Port continuously bombards residents from all sides. In fact, residents have a higher exposure to diesel particulate matter than over 90% of Californians.[49] They are also 99% more likely to have asthma and 96% more likely to be born with low birth weight compared to other people in the state.[50] Despite acknowledging the presence of these environmental justice communities near the Project area, the Army Corps fails to adequately address potential impacts to these communities. The Draft Report's conclusion that the Project will have no significant environmental justice impacts is therefore arbitrary and capricious.

According to the U.S. Environmental Protection Agency (EPA), environmental justice requires "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies."[51] Executive Order 12898 directs each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its

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[48] See generally CARB, "Emissions Impacts of Recent Congestion at California Ports," *supra*.

[49] Cal. Environmental Protection Agency (CalEPA), Office of Environmental Health Hazard Assessment (OEHHA), *California Communities Environmental Health Screening Tool* (hereinafter "CalEnviroScreen 4.0"), https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40 (accessed Feb. 1, 2022).

[50] *Id.*

[51] U.S. Environmental Protection Agency (EPA), *Learn About Environmental Justice* (2021), https://www.epa.gov/environmentaljustice/learn-about-environmental-justice (accessed Feb. 1, 2022).

programs, policies, and activities on minority populations and low-income populations . . . ."[52] The "identification of a disproportionately high and adverse human health or environmental effect on a low-income population [or] minority population ..... should heighten agency attention to alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population."[53]

Therefore, under NEPA, agencies conducting environmental review for a proposed project "must not only disclose..... that certain communities and localities are at greater risk, but must also fully assess these risks."[54] The agency "cannot discount the localized impacts to people for whom the public health impacts are of clear significance."[55] To satisfy this "hard look" standard, the Army Corps must fully assess the public health and other impacts of the Project, including grappling with the substantial evidence suggesting that expanding the Port's Turning Basins could cause major increases in freight activity that will in turn severely affect nearby vulnerable and overburdened communities.

West Oakland is one of the most significant environmental justice communities in California. Residents are surrounded by freeways and sprawling freight complexes that spill into the community from the Port, its railyards, and the Oakland Army Base. West Oakland is bounded by Interstate 880 to the south and west, Interstates 80 and 580 to the north, and Interstate 980 to the east. The Port of Oakland and its associated railyards lie to the south and west.[56] The community thus grapples with the presence of many different and dangerous pollution sources. The number and type of cleanup sites is higher than 99% of the census tracts in California, higher than 99% for groundwater threats, and higher than 93% for hazardous waste generators and sites.[57] Taking the requisite hard look at all significant environmental justice impacts inherently requires

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[52] Exec. Order No. 12898, 59 C.F.R. § 32 (1994).

[53] Council on Environmental Quality, *Environmental Justice: Guidance Under the National Environmental Policy Act* (Dec. 10, 1997) at p. 10, https://ceq.doe.gov/docs/ceq- regulations-and-guidance/regs/ej/justice.pdf.

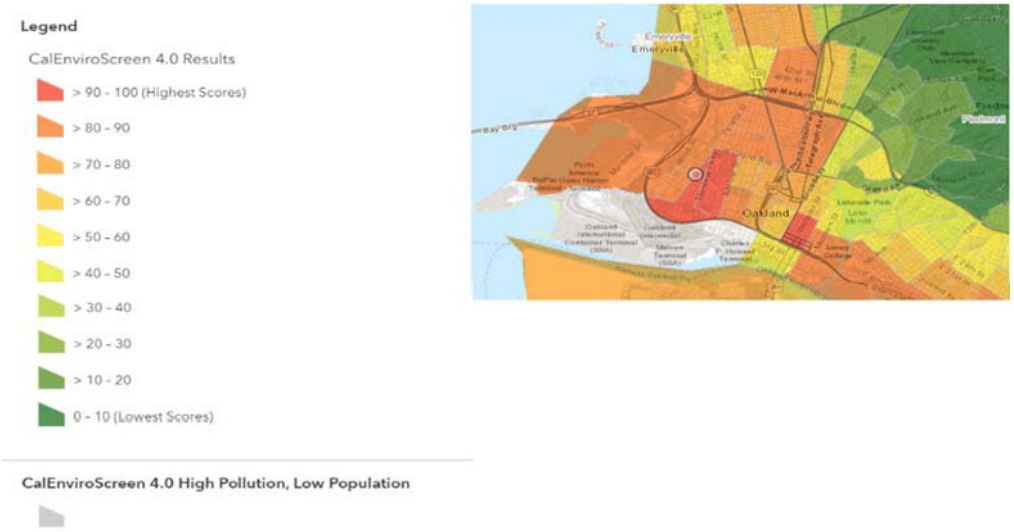
[54] *California v. Bernhardt*, 472 F. Supp. 3d 573, 620 (N.D. Cal. 2020).

[55] *Id.* at 622.

[56] Bay Area Air Quality Management District (BAAQMD) & WOEIP, *Owning Our Air: The West Oakland Community Action Plan*, Vol. 1 (Oct. 2019) at p. 2-1, https://www.baaqmd.gov/~/media/files/ab617-community-health/west-oakland/100219-files/final-plan-vol-1-100219-pdf.pdf?la=en.

[57] CalEnviroScreen 4.0, *supra*.

an analysis of these types of cumulative impacts. Communities such as West Oakland are designated as environmental justice communities precisely because of the cumulative nature of the impacts they endure. Cumulative impacts are a particular concern for West Oakland because residents are already overburdened by environmental pollution and other stressors and therefore are especially susceptible to adverse health consequences stemming from projects such as this one.




Indeed, West Oakland is one of the most pollution-burdened areas of the state, with elevated levels of diesel particulate matter (diesel PM), fine particulate matter ($PM_{2.5}$), and toxic air contaminants (TACs). The community is ranked in the 80–90th percentile for pollution burden in California.[58] EPA's EJSCREEN tool ranks West Oakland in the 57th percentile for $PM_{2.5}$ exposure in the state and in the 94th percentile nationally.[59] West Oakland is in the 97th percentile for diesel PM exposure in the state and in the 95th percentile nationally.[60] Residents also face some of the highest elevated cancer risks, with EJSCREEN ranking the community in the 56th percentile for cancer risk in the state and in the 78th percentile nationally.[61]

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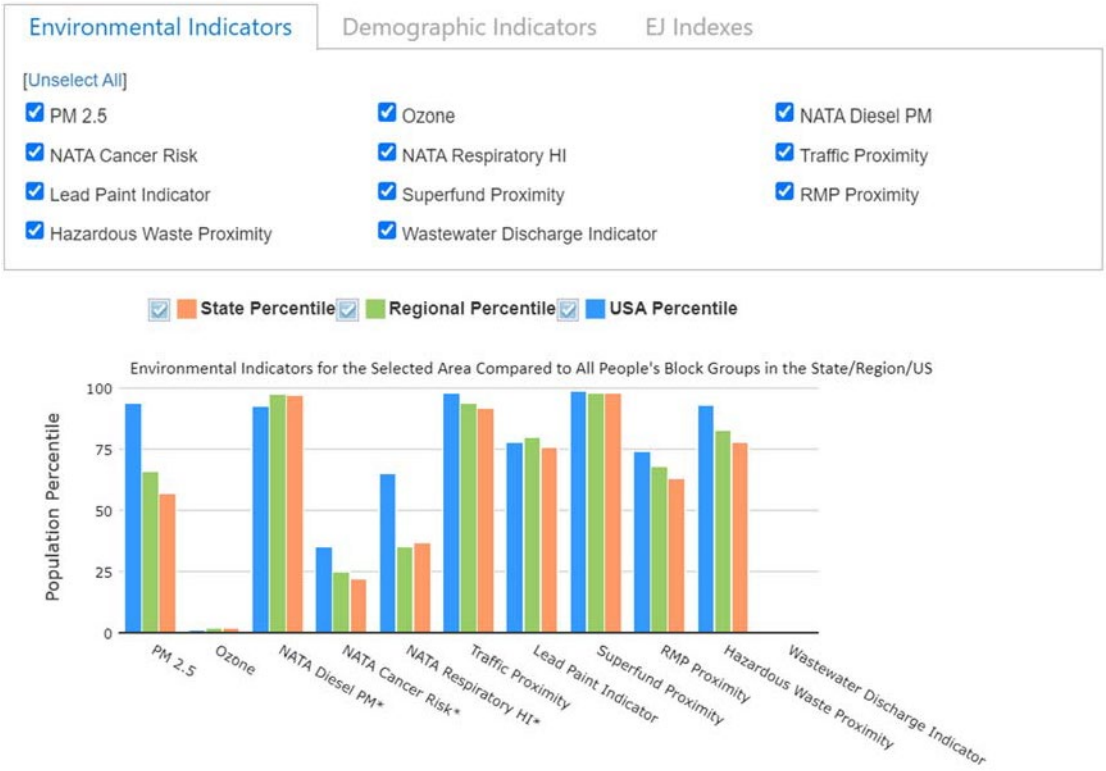
58 *Id.*
59 U.S. EPA, *EJSCREEN*, https://ejscreen.epa.gov/mapper/ (accessed Feb. 2, 2022).
60 *Id.*
61 *Id.*




As a result, West Oakland residents experience higher rates of death from cancer as well as heart disease and strokes, and higher rates of asthma emergency visits and hospitalizations compared to the rest of Alameda County.[62] Asthma hospitalizations for West Oakland are about 88% higher than the County average and heart disease deaths are 33% higher.[63] Half of new childhood asthma cases in West Oakland are due to traffic-related air pollution, compared to about 20% of new childhood asthma cases in the nearby affluent and mostly white Oakland Hills neighborhood.[64] Residents also have the lowest life expectancies among the rest of their neighbors in Alameda County.[65] These injustices are compounded by the fact that West Oakland remains primarily a community of color. Approximately 42% of residents are Black (compared to 6% of all Bay Area residents), 18% identify as Latino, and 11% are Asian.[66] About half of the population lives below the Bay Area poverty level (two times the federal

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62 *Owning Our Air: The West Oakland Community Action Plan*, *supra*, at p. 2-9.

63 *Id.*

64 Environmental Defense Fund, *Air Pollution's Unequal Impacts in the Bay Area* (Mar. 31, 2021), https://www.edf.org/airqualitymaps/oakland/health-disparities.

65 *Owning Our Air: The West Oakland Community Action Plan*, *supra*, at pp. 2-7 to 2-9.

66 *Id.* at p. 2-6.

poverty level), compared to 25% in Alameda County and 23% in the Bay Area as a whole.[67]

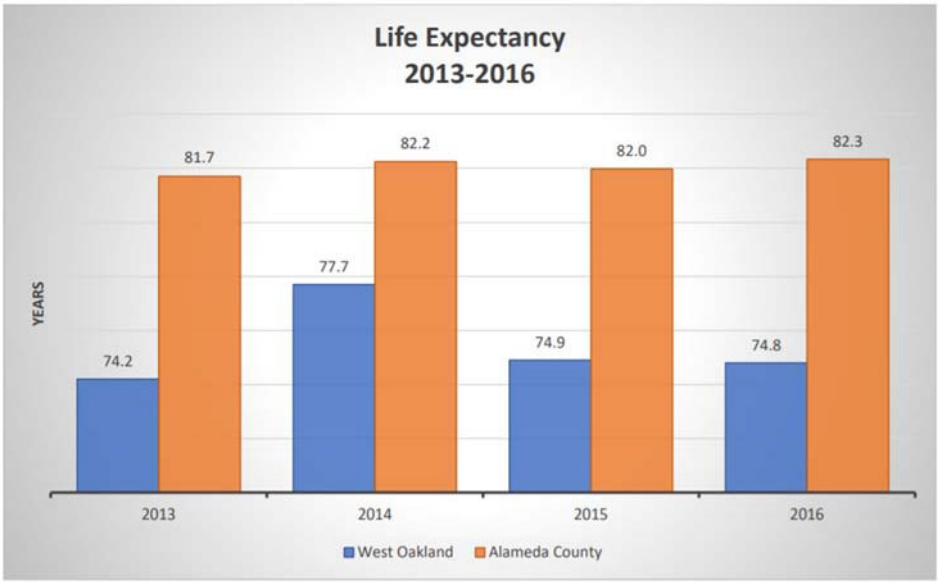


*Figure 2-9. Life Expectancy at Birth for West Oakland and Alameda County*

Freight activity from the Port already accounts for the lion's share of diesel PM and $PM_{2.5}$ emissions and cancer risk posed by TACs in West Oakland. The Port is responsible for 57% of diesel PM emissions in tons per year (tpy), nearly 20% of $PM_{2.5}$ emissions tpy, and 52% of cancer risk-weighted toxics.[68] Ocean-going vessels and harbor craft are a significant source of emissions from the Port, producing 12 tpy of diesel PM and nearly 16 tpy of $PM_{2.5}$.[69] Cargo handling equipment produces another 2 tpy each of diesel PM and $PM_{2.5}$.[70] The top local contributors to both diesel PM and cancer risk are heavy-duty diesel trucks (about 40%), marine vessels (about 30%), and rail (about 20%).[71] Diesel PM is responsible for over 90% of the cancer risk from local air pollution in West Oakland.[72] Even without accounting for the expanded cargo throughput activity that could result from this Project, the volume of goods moved by

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67 *Id.*

68 *Id.* at p. 5-9.

69 *Id.* at p. 5-7.

70 *Id.*

71 *Id.* at p. 5-12.

72 *Id.* at p. 5-14.

the Port on all modes of transit is projected to increase over time, acutely compounding the pollution burden on West Oakland residents.[73]

West Oakland's community characteristics and existing environmental burdens therefore warrant careful consideration of potential "disproportionately high and adverse human health or environmental effects" associated with this Project and any increased freight activity it causes.[74] The Army Corps, however, fails to provide this careful consideration. The Draft Report instead improperly narrows its analysis to "the racial and income characteristics for census tract (CT) within or significantly intersecting both a 0.5-mile and 1-mile radius" of each of the Turning Basins.[75] This small analysis area—further limited to construction impacts alone—not only fails to capture how the Port's increased operations from the Project could foreseeably spill out into the region, but also, incredibly, leaves out most of the directly adjacent 6.5-square- mile neighborhood of West Oakland.

Similarly, the Corps claims the Port conducted a health risk assessment (HRA) for the Project, but the Draft Report and appendices do not include clear references for the public to review and comment on it. The brief discussion in Appendix A-4 discussing criteria pollutant emissions during construction within the small geographic analysis areas is too limited to properly constitute an HRA.[76] There is no discussion of potential local risks and hazards from increases in diesel PM, $PM_{2.5}$, and TAC emissions from either the construction or operations impacts of the Project. The analysis fails entirely to analyze local risks and hazards in the context of nearby environmental justice communities like West Oakland and others in the region that may be impacted by the Project. Finally, the HRA fails to analyze the cumulative impacts from this Project in the context of the existing environmental pollution and threats that already overburden surrounding communities. The HRA therefore lacks the requisite level of information and is so narrow as to be meaningless in assessing health and safety risks. The Corps must complete a full EIS and an HRA that analyze the construction *and* operations impacts of the Project in the whole region.

Local transportation emissions from Port-related sources represent by far the largest share of criteria air pollutant and greenhouse gas emissions in West Oakland

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[73] See, e.g., MAQIP Update, *supra*, at p. 4 (indicating TEU growth rates between 2.4% to 3.0% in the coming years).

[74] Exec. Order No. 12898, 59 C.F.R. § 32 (1994).

[75] Draft Report, p. 24.

[76] Draft Report, pp. 126, 134.

and surrounding communities, primarily from drayage trucks, cargo handling equipment, ships and harbor craft, and trains traveling through the railyards located at the Port. The Army Corps must therefore take a hard look at whether the thousands of additional construction-related truck trips as well as dramatically larger ships and associated increase in cargo throughput will further contribute to the air pollution and climate crises and their attendant public health and safety impacts in the region.

In addition, the Corps must assess whether this Project conflicts with federal, statewide, and local policies and plans to reduce air pollution and greenhouse gas emissions and protect vulnerable communities in California. Under NEPA, an agency must include discussion of "[p]ossible conflicts between the proposed action and the objectives of Federal, regional, State, Tribal, and local land use plans, policies and controls."[77] The EIS must also "discuss any inconsistency of a proposed action with any approved State, Tribal, or local plan or law."[78]

California has enacted several statutes to protect its disadvantaged communities from air and water pollution and this Project would have a significant adverse impact on the state's ability to meet these goals. For example, California State Assembly Bill (AB) 617 (2017) created a Community Air Protection Program that is focused on reducing exposure in communities most impacted by air pollution, including several near the Port that will be impacted by this Project, such as West Oakland and Richmond.[79] Indeed, West Oakland was selected as a first-year priority community under the program—one of the top ten in the state most impacted by pollution.

WOEIP partnered with the Bay Area Air Quality Management District ("BAAQMD") and California Air Resources Board to develop the West Oakland Community Air Action Plan ("WOCAAP") under AB 617. The WOCAAP implements 89 different strategies to reduce impacts in the community from $PM_{2.5}$, diesel PM, and cancer risk from all toxic air contaminants.[80] The strategies are designed to minimize community exposure to freight activity and, importantly, to transition to a more sustainable and equitable freight system in the region. For example, many of the

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[77] 40 C.F.R. § 1502.16(a)(5).

[78] 40 C.F.R. § 1506.2(d).

[79] Governor Gavin Newsom. (2020). *Executive Order N-79-20*, https://www.gov.ca. gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf (accessed July 20, 2021); Cal. Air Resources Board, *Community Air Protection Program Communities*, https://ww2.arb.ca.gov/capp-communities (accessed Feb. 2, 2022).

[80] See generally *Owning Our Air: The West Oakland Community Action Plan*, *supra.*

strategies will require state and local agencies to work together to reduce truck impacts on local streets in West Oakland, limit hours when trucks can operate in the community, and improve truck flow and congestion in the face of increasing visits from large container vessels.[81]

This Project, which will cause thousands of additional truck trips during construction, and could dramatically expand cargo throughput capacity and result in much greater freight activity in and around the Port, conflicts with these emissions reduction strategies and undermines the WOCAAP's goal to establish a sustainable model for freight activity in communities near the Port. The Corps must therefore assess whether this Project will infringe on the state's ability to meet its community protection and emissions reduction goals and discuss measures that will address any conflicts.

Similarly, the Draft Report fails to consider the West Oakland Truck Management Plan ("TMP"), which the City and Port of Oakland adopted in 2019 to reduce the incidence and impacts of trucks driving through and parking in the community.[82] The City and Port are still in the midst of a five-year implementation plan for the TMP, yet the Corps did not analyze whether a huge expansion of truck trips during both the construction and operations phases of this Project could conflict with the goals and implementation of the TMP.

At the federal level, Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d et seq., prohibits entities receiving federal financial assistance from engaging in activities that subject individuals to discrimination on the basis of race, color, or national origin. Pursuant to Title VI, the U.S. Department of Defense, which is the parent agency of the Army Corps, promulgated regulations prohibiting funding recipients from engaging in discrimination.[83] The Port of Oakland receives significant financial assistance from the Corps, as well as the U.S. Department of Transportation, EPA, and other federal agencies, and is a 50% cost share partner with the Army Corps on this Project.[84] The Department of Defense and the Corps thus have an affirmative obligation to ensure that

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81 *Id.* at pp. 6-22, 6-26.

82 City of Oakland & Port of Oakland, "West Oakland Truck Management Plan" (May 2019), https://cao-94612.s3.amazonaws.com/documents/West-Oakland-Truck- Management-Plan-FINAL-APPROVED.pdf.

83 See 40 C.F.R. §§ 195.1, 195.3.

84 See, e.g., *2021 Port Infrastructure Development Program Grant Awards*, U.S. Department of Transportation, Maritime Administration, https://bit.ly/3LuFuDQ.

the Port complies with Title VI and the Defense Department's implementing regulations.

The Port and the Corps fail to satisfy their Title VI obligations for this Project. The Draft Report fails to evaluate whether the Project will disproportionately subject the communities of color that surround the Port to additional air pollution and other serious health threats on the basis of their race. In fact, the Draft Report fails to provide *any* discussion of compliance with Title VI, instead referring to Title VI in one short sentence.[85] We find this especially troubling because the President and other federal agencies have made environmental justice a top priority for the new administration.

The President's Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," issued in January 2021, states:

> To secure an equitable economic future, the United States must ensure that environmental and economic justice are key considerations in how we govern. Agencies shall make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts. It is therefore the policy of my Administration to secure environmental justice and spur economic opportunity for disadvantaged communities that have been historically marginalized and overburdened by pollution and underinvestment in housing, transportation, water and wastewater infrastructure, and health care.[86]

The Corps must therefore hold the Port accountable in its environmental review of this Project. Not only does the Draft Report fail to meaningfully address Title VI, however, it also fails to even mention WOEIP's 2017 Title VI complaint against the Port, which WOEIP filed after the Port continuously authorized freight expansion activities exactly like this Project. The complaint resulted in a Title VI settlement that ultimately imposed public engagement and substantive decisionmaking requirements on the Port

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85 Draft Report, p. 22.

86 Executive Order (EO) 14008 (Jan. 27, 2021), § 219.

by the Department of Transportation and EPA to ensure Title VI-compliant processes at the Port going forward.[87]

The Port and Corps must ensure this Project complies with these requirements and properly analyze any disproportionate impacts on the surrounding community. The analysis must include appropriately tailored, updated mitigation measures that address the harmful externalities of expanded industrial and freight activities resulting from this Project. The Corps must also commit to a meaningful, continuous process for receiving and incorporating input from the West Oakland community—not one where the Corps and Port simply tell the community about its plans and decisionmaking after the fact. If the Army Corps and Port cannot ensure compliance with Title VI or the mitigation measures cannot appropriately address all impacts on surrounding communities, the Corps cannot move forward with the Project.

### 3. Failure to Consider Operational Air Quality Impacts at the Port

The Draft Report fails to take the Port's daily operations into account in its analysis of air quality impacts, particularly considering that the proposed Project could not only facilitate ongoing commercial activity at the Port but actually fuel expansion.

In its air quality analysis, the Corps performs a cursory review of the impacts that dredging and construction activities will have on air pollution, based on the Draft Report's underlying assumption that the Project will have only local environmental impacts. Based on that flawed assumption, the Draft Report analyzes the proximity of sensitive receptors—meaning, people who are more sensitive to air pollutants, and the places where they congregate, such as daycares, parks, apartment buildings, and nursing homes—within a constrained 2,000-foot radius of each of the two Turning Basins.[88] The Report further constricts its analysis only to the period from 2027 to 2029,

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[87] WOEIP's Complaint against the City and Port of Oakland Under Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d (Apr. 4, 2017), https://earthjustice.org/sites/default/files/files/2017-04-04-TitleVI_Complaint.pdf; EPA's Resolution of Administrative Complaints (July 26, 2019), https://earthjustice.org/sites/default/files/files/Resolution%20Letter%20and%20IRA%20-%20Paul%20Cort%20-13R%20and%2014R-17-R9%202019-07-26.pdf.

[88] See Draft Report, pp. 84-85 (identifying only the sensitive receptors within 2,000 feet of the Turning Basins).

when the Corps estimates construction will take place.[89] But as throughout the entire Draft Report, the assumption that construction is the *only* source of air pollution dramatically underestimates the potential for impacts to air quality, and renders the entire analysis inadequate.

The Port is already a major contributor to air pollution in Alameda County. As a complex maritime facility with multiple incoming truck routes, interconnected rail yards and rail lines, the Port's daily operations have significant air quality impacts on the 26,000+ residents of the West Oakland community in particular.[90] Heavy-duty trucks, marine vessels, and rail all operate daily in, around, and through the community to enable the steady flow of cargo to and from the Port.[91]

While the Draft Report implies that a conversion to larger ships will decrease the overall number of vessel trips at the Port,[92] the Corps does not provide adequate support for that assumption. In improving operational efficiency, this Project could conceivably induce growth and even increase the cargo throughput *and* vessel visitation simultaneously at the Port.[93] Even if the Project does somehow decrease the overall number of vessel trips, the larger ships that will be accommodated by this Project carry more cargo and will take longer to unload, spending more time in the harbor.[94] The Port could also conceivably require more cargo handling equipment, rail, and truck visits at any given time to handle the influx of larger cargo loads, resulting in higher localized concentrations of pollution to the communities adjacent to the Port, as discussed in Section I.B.1, *supra*.[95] All of these impacts from cargo throughput will have an impact on regional air pollution and the West Oakland community in particular, which cannot afford any additional pollution. The Draft Report fails to analyze those significant impacts.

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89 See Draft Report, p. 183 (analyzing air emissions "based on construction schedule and phasing, proposed construction equipment lists, activity levels, and worker and construction truck trips by phase" from 2027 to 2029).

90 See generally *Owning Our Air: The West Oakland Community Action Plan*, *supra*.

91 *Id.* at p. 5-12.

92 See Draft Report, p. 14.

93 See Section I.B.1, *supra*.

94 See "Port of Oakland 2020 Seaport Air Emissions Inventory Final Report," *supra*, at p. 24.

95 See, e.g., CARB, "Emissions Impacts of Recent Congestion at California Ports," *supra*, at p. 1 (observing that "increased cargo imports are expected to increase the activity of trucks and locomotives moving these containers in/out of the ports").

To provide another specific example, the Draft Report entirely fails to mention or analyze the impact of at-anchor emissions by larger vessels on air emissions. The Port's "Emissions Inventory Report" confirms that ocean-going vessels accounted for more than half of the diesel particulate matter and more than three-quarters of the nitrogen oxide emissions at the Port in 2020.[96] That Report also indicates that the number of hours vessels spent at anchor (awaiting a berth assignment at the Port or their next port of call assignment) increased from 1,505 total hours in 2005 to 6,815 total hours in 2020; the average time at anchor per vessel also increased from 15.2 hours in 2005 to 27.4 hours in 2020.[97] The Corps should have analyzed whether, and to what degree, the increase in anchorage times correlates to the trend of increased callings by larger vessels, which the Port reported in its Emissions Inventory Report.[98] The Corps additionally should have analyzed in the Draft Report the degree to which anchorage times by larger ships (whose visitation will be facilitated by the widening of the Turning Basins) will contribute to the regional air pollution burden. For example, larger ships might foreseeably emit more pollutants per hour while waiting at anchor than smaller ships do—even if there are fewer total ships calling on the Port. The Corps' failure to analyze at-anchor emissions to any degree in the Draft Report violated NEPA.

Air pollution is already an urgent health concern in this region. Alameda County has been in marginal nonattainment for the national 8-hour ozone (both the 2008 and the 2015 standards) and moderate non-attainment for the 24-hour $PM_{2.5}$ 2006 standards for multiple years in a row.[99] The movement of goods to and from the Port is a significant source of criteria pollutant emissions (like particulate matter and ozone) that affects the region's nonattainment status, and this Project could reasonably lead to increased freight transportation. The Corps must consider the potential for significant operational impacts to air quality produced by the widening of the Turning Basins, and the Draft Report entirely fails to perform analysis of any operational impacts.[100]

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96 "Port of Oakland 2020 Seaport Air Emissions Inventory Final Report," *supra*, at p. 78.

97 *Id.* at 25.

98 See *id.* at 24.

99 See generally EPA, "California Nonattainment / Maintenance Status for Each County by Year for All Criteria Pollutants," (current through Jan. 31, 2022), https://www3.epa.gov/airquality/greenbook/anayo_ca.html.

100 See Draft Report, p. 130.

The Draft Report also errs by characterizing the increased exposure to ozone and particulate matter as "de minimis" exposure.[101] The Corps' "de minimis" characterization for those pollutants is misleading. As described above, the West Oakland community is already disproportionately exposed to pollution from freeways, rail, industrial activity, and heavy car and truck traffic. Even though federal regulations currently specify "de minimis" levels for ozone and $PM_{2.5}$ at 100 tons per year, any contribution of pollutants must be considered cumulatively alongside all of the other major sources of pollution in the region. The Corps has a responsibility to provide accurate air emissions estimates for this Project, supplement those estimates with details about the calculations and assumptions used to achieve those numbers, and to perform a conformity determination under the Clean Air Act for the aggregated effects of the Project. The Corps did not meet its responsibility to do those things in the Draft Report.

The Corps also failed to consider the possibility that callings by larger vessels could result in increased truck traffic to and through the West Oakland community. Even taking as true the Corps' assumption that larger vessels will equate to a lower number of vessel callings—which remains an unanalyzed assumption that the undersigned organizations strongly question—more truck or rail capacity will be necessary to load or offload the increased cargo capacity available on each larger ship that calls on the Port of Oakland.[102] Unless increases in regional truck traffic are limited exclusively to zero-emissions vehicles, then any increase in truck traffic will inevitably increase the air pollution burden on the West Oakland community. The Corps failed to analyze this possibility in any depth in the Draft Report.

The Corps' decision to proceed without analyzing the possibility of an increase in transport truck traffic also ignores regional efforts to reduce the impacts generated by truck congestion. The Port of Oakland finalized a Truck Management Plan for West Oakland in 2019 after considering substantial public input from members of the residential and business communities.[103] Among the issues the Truck Management Plan aims to address are (1) safety for pedestrians and bikers whose routes are regularly criss-crossed by commercial trucks, (2) truck traffic flow and congestion in residential neighborhoods, and (3) idling and parking in illegal spaces not intended for commercial trucks. All of these issues have an indirect—but important—effect on air quality, because commercial trucks that pass regularly through residential areas expose residents to ongoing pollution caused by combustion of fossil fuels. The Army Corps

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101 Draft Report, pp. 80-81.

102 See discussion of Jungen *et al.* in Section I.B.1, *supra*.

103 See generally "West Oakland Truck Management Plan," *supra*.

cites the Truck Management Plan in its list of references but fails to discuss it in any depth whatsoever in the Draft Report. Similarly, the Corps did not consider the mitigation measures in West Oakland's AB 617 plan, which require reductions from truck impacts on local streets and improved truck flow and congestion in the face of increasing visits from large container vessels.[104] The Corps' failure to discuss the implications of truck traffic further contributes to a flawed Draft Report.

In sum, the Draft Report utterly disregards the potential air quality impacts that could result from widening the Turning Basins. The Army Corps should perform a full Environmental Impact Statement rather than relying on the flawed EA and FONSI it has prepared here. In revisiting its analysis of air quality impacts, the Corps should ensure that it coordinates with BAAQMD to identify reasonable mitigation commitments that it could undertake, alone or jointly with the Port, to address the potential impacts to regional air quality. Some of those potential mitigation measures are outlined in more detail in Section I.D, *infra*.

#### 4. Failure to Analyze Climate Change and Greenhouse Gas Emissions Impacts

The FONSI issued with the Draft Report inexplicably concludes that climate change will be "unaffected by" the proposed Project.[105] That conclusion is faulty and unsupported by analysis. The Corps must revise its Draft Report to issue a full EIS that analyzes the potentially significant impacts to greenhouse gas emissions (and therefore, climate change) that will be fueled by expansion of the Turning Basins and the resultant potential for concomitant growth in freight volume flowing through the Port, either due to debottlenecking or induced growth, as discussed in Section I.B.1 above.

As a general rule, increased cargo throughput equates with an increase in greenhouse gas emissions. Emissions from the Port and port-related activities are determined by the emissions factor of the various pollution sources, multiplied by the level of activity of those pollution sources. As an emissions inventory completed for the Port of Oakland explains: "Simply stated, if the cargo throughput doubles, this analysis assumes the source category activity will also double."[106] Absent major changes to Port equipment and ocean-going vessel technology that would dramatically alter their emissions factors, any increases in cargo throughput capacity caused by the Project will result in substantial greenhouse gas emission increases. The emissions inventory

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104 *Owning Our Air: The West Oakland Community Action Plan*, *supra*, at pp. 6-22, 6-26.

105 Draft Report, Appendix A-10, p. 2.

106 MAQIP Update, *supra*, at p. 4.

highlights that even under a scenario assuming turnover to lower-emitting technologies, capacity "growth outpaces the emission reductions achieved by control strategies resulting in . . . increases in $CO_2$ emissions."[107]

This relationship between cargo throughput and greenhouse gas emissions is already apparent at West Coast ports amid the surge in cargo movement in 2021. As the California Air Resources Board ("CARB") notes in its 2022 Draft State Implementation Plan, "[i]ncreased cargo imports and congestion of ocean-going vessels at ports across California, together with the related increased activity of trucks and locomotives moving containers in and out of the ports, has recently led to significant emissions increases."[108] Unless there is a decisive, expansive effort by the Port to ensure that any increased freight activity relies on zero-emissions technologies, the Project will surely increase greenhouse gas emissions and contribute to worsening climate impacts. These impacts mean that the Project will impede progress toward achieving a net-zero emissions economy at the Port of Oakland and across the State—which state and local government agencies committed to in the Port of Oakland's Seaport 2020 and Beyond Plan,[109] the City of Oakland's Equitable Climate Action Plan,[110] and the State of California's goal of achieving carbon neutrality by 2045.[111] Under NEPA, the Corps must now assess whether the Project is consistent with, or instead will infringe upon, the ability of the state, the City of Oakland, and the Port to meet their climate goals.[112] The Corps erred in its Draft Report by failing to analyze these conflicts or the potential for significant impacts on greenhouse gases and climate change. And the Corps' FONSI that finds climate change will be "unaffected by" the Project is arbitrary and capricious due to its reliance on a flawed EA.

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107 *Id.*

108 CARB, 2022 Draft State Implementation Plan (Jan. 31, 2022) at p. 17, https://ww2.arb.ca.gov/sites/default/files/2022-01/Draft_2022_State_SIP_Strategy.pdf.

109 Port of Oakland, Seaport Air Quality 2020 and Beyond Plan – the Pathway to Zero Emissions (June 13, 2019), https://www.portofoakland.com/files/PDF/2020%20and%20Beyond%20Plan%20Vol%20I.pdf.

110 City of Oakland, Oakland 2030 – Equitable Climate Action Plan (July 2020), https://cao-94612.s3.amazonaws.com/documents/Oakland-ECAP-07-24.pdf.

111 Governor Jerry Brown, Executive Order (EO) B-55-18 to Achieve Carbon Neutrality (Sept. 10, 2018), https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18- Executive-Order.pdf.

112 40 C.F.R. § 1506.2(d).

### 5. Failure to Analyze Impacts of Dredging on Water Quality

The Draft Report inappropriately fails to analyze the potential for water quality impacts caused by the Project. Specifically, the Report fails to adequately consider the water quality impacts that will result from dredging (and the impacts on species that will result), as well as the risk of contaminant resuspension in the water column and its potential for exacerbation due to climate change. The Draft Report also fails to adequately justify its reliance on work windows to mitigate water quality impacts caused by dredging, as described below.

Dredging

The Corps inappropriately minimizes the significance of sublethal harms to wildlife and fisheries species associated with dredging. The Draft Report describes an anticipated production of more than 1.9 million cubic yards of dredged material while widening the Turning Basins under its preferred alternative.[113] Dredging resuspends sediment and associated organic material, including any contamination within the sediments. This can lead to temporary increases in turbidity and nutrients, reductions in dissolved oxygen, and/or changes in temperature and pH. These water quality impacts can harm fish, benthic animals, and marine mammal foraging. The transit of dredged material can result in spills and the disposal can also resuspend dredged materials.
Additionally, resuspension of contaminated sediments accompanying the proposed dredging project poses a substantial risk to marine life in the project vicinity. The Army Corps failed to adequately analyze any of these potential impacts in the Draft Report, instead only characterizing these types of impacts as "insignificant" in its FONSI.[114]

Longfin smelt, various salmonids, and green sturgeon are among the fish species the Corps identifies in the region. Dredging can cause fish species to suffer gill damage, body abrasion, reduced reproductive success, reduced visibility, decreased predator avoidance, modified territoriality, altered feeding and homing behavior, and

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[113] Draft Report, pp. iv-v.

[114] See Draft Report, Appendix A-10, p. 2.

flight/avoidance response.[115] The cumulative effects of these and other stressors may lead to a host of harms including reduced reproductive output, immunosuppression, and increased mortality. The Corps must discuss expected effects on regional and protected fish populations in more detail.

Three types of marine mammals—the Pacific harbor seal, California sea lion, and harbor porpoise—are known to exist in the vicinity of the Turning Basins, and these species, too, may suffer adverse impacts from dredging.[116] Specifically, increased turbidity and dredging activity have the potential to disturb marine mammal foraging activities. The Corps declares such effects inconsequential because marine mammals "forage over large areas of San Francisco Bay and can avoid areas of temporarily increased turbidity and dredging disturbance."[117] But such relocation of effort is not without cost. The animals must expend energy to relocate, and distribution of prey is not uniform across time and space. Other threats to marine mammals may loom (*e.g.,* ship strikes, predators) in the areas to which they relocate. Marine mammals may also be impacted by the noise of dredging and those impacts may manifest as changes in feeding, breeding, and predator-avoidance behaviors; flight/avoidance behavior; and changes in dive times, migration routes, and swimming speeds. The Corps must conduct a more searching analysis of potential dredging-related impacts to marine mammals.

The Corps refers vaguely in the Draft Report to techniques that may be used to limit the adverse effects of dredging, such as using silt curtains, "avoiding spillage," and "increasing cycle times."[118] But the Corps barely discusses these at any length in the Draft Report, and even the section of the Appendix dedicated to the development of avoidance and minimization measures couches these obligations in noncommittal language.[119] Further, the Corps fails to discuss the degree to which the various proposed mitigation techniques will be employed to minimize harms to local aquatic

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[115] Amelia S. Wenger et al., "A Critical Analysis of the Direct Effects of Dredging on Fish," 18 Fish & Fisheries 967 (Sept. 2017), https://onlinelibrary.wiley.com/doi/full/10.1111/faf.12218 ; see also Michael E. Kjelland et al., "A review of the potential effects of suspended sediment on fishes: potential dredging-related physiological, behavioral, and transgenerational implications," 35 Enviro. Systems & Decisions 334 (2015), https://link.springer.com/article/10.1007/s10669-015-9557-2.

[116] Draft Report, p. 43.

[117] Draft Report, pp. 152-53.

[118] Draft Report, p. 139; see Draft Report, Appendix A-7, PDF p. 251.

[119] See Draft Report, Appendix A-7, PDF pp. 250-54.

species. The Corps must revisit its analysis of the harms to local species associated with dredging, and provide more explicit instructions regarding any required mitigation for dredging-related impacts.

Moreover, the Corps must consider the impacts from maintaining the depth of the Turning Basins. While maintenance dredging of these channels is already an ongoing activity, maintenance of the Basins will necessarily change as a result of the widening project envisioned here. The Draft Report fails to analyze the impacts from continuing to conduct maintenance dredging. Maintenance of the proposed depth is part of this Project and must be evaluated in a full EIS.

Contaminant Resuspension, and its Exacerbation by Climate Change

The Army Corps also failed to adequately analyze the risks from resuspension of contaminants into the water column, and the possibility that such contamination could be exacerbated by climate change. The resuspension of contaminated sediments accompanying the proposed dredging project poses a substantial risk to marine life in the project vicinity. Such resuspension poses a threat in particular to marine mammals, which—due to high levels of body fat—tend to bioaccumulate lipophilic contaminants.[120]

Benthic sediments like those underlying the greater San Francisco Bay area act as a sink for anthropogenic contaminants including heavy metals (e.g., copper, lead, cadmium and zinc), polycyclic aromatic hydrocarbons ("PAHs"), phthalates, and persistent organic pollutants ("POPs") including polychlorinated biphenyls ("PCBs"), pesticides (e.g., DDT), and flame retardants ("PBDEs").[121] Dredging resuspends seafloor sediments, remobilizing a fraction of the contaminants and making them bioavailable to aquatic life.[122] This bioavailability and uptake can have devastating ecological consequences. For example, remobilized metals like copper and zinc pose a

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[120] *Cf.* Ross, P.S. et al., "High PCB Concentrations in Free-Ranging Pacific Killer Whales, Orcinus orca: Effects of Age, Sex, and Dietary Preference," 40 Marine Pollution Bull. 504 (2000).

[121] Knott, N.A. et al., "Contemporary Ecological Threats from Historical Pollution Sources: Impacts of Large-Scale Resuspension of Contaminated Sediments on Sessile Invertebrate Recruitment," 46 J. Applied Ecology 770 (2009).

[122] Draft Report, p. 140; Knott et al. (2009), *supra*; Victor, O. et al., "Environmental Effect of Dredging and Geochemical Fractionation of Heavy Metals in Sediments Removed from River," 6 Modern Chem. 44 (2018).

threat to salmon at very low concentrations. Many POPs, including PCBs, bioaccumulate in the fatty tissues of animals and biomagnify up the food chain.[123]

Studies of pinnipeds—like the California sea lions and harbor seals that are known to visit the Project area—have demonstrated that elevated POP concentrations lead to reproductive impairment, endocrine disruption, immunotoxicity, neurotoxicity, and skeletal abnormalities.[124] And a growing body of evidence on cetaceans suggests that organochlorine chemicals put certain cetacean species at risk for similar toxic responses.[125] Indeed, scientists studying other cetacean populations have found an association between high PCB-concentrations in females and low recruitment, which in turn leads to declining abundance.[126] The Corps did not consider whether such concerns may also apply to the myriad species that frequent the San Francisco Bay.

The Corps also must consider how climate change may increase exposure to and bioaccumulation/ biomagnification of certain contaminants in marine organisms including the Chinook salmon. These increases in exposure or bioconcentration may occur (1) as climate change increases contaminant exposure or sensitivity, and/or (2) when contamination leads to an increase in susceptibility to other climate change effects.[127] Alava et al. (2018) estimate climate-induced contaminant amplification in Chinook salmon to be on the order of 10%. The Corps must consider how the proposed dredging and any associated contaminant resuspension would interplay with climate change effects and potentially harm resident fish and wildlife species.

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[123] Ross et al. (2000), *supra*; Hall, A.J. et al., "Predicting the Effects of Polychlorinated Biphenyls on Cetacean Populations Through Impacts on Immunity and Calf Survival," 233 Envtl. Pollution 407 (2018).

[124] Ross et al. (2000), *supra*; Krahn, M.M. et al., "Effects of Age, Sex and Reproductive Status on Persistent Organic Pollutant Concentrations in 'Southern Resident' Killer Whales," 58 Marine Pollution Bull. 1522 (2009); Lundin, J.I. et al., "Persistent Organic Pollutant Determination in Killer Whale Scat Samples: Optimization of a Gas Chromatography/Mass Spectrometry Method and Application to Field Samples," 70 Archives Envtl. Contamination & Toxicology 9 (2016).

[125] Ross et al. (2000), *supra.*

[126] Hall et al. (2018), *supra*.

[127] Alava, J.J. et al., "Projected Amplification of Food Web Bioaccumulation of MeHg and PCBs Under Climate Change in the Northeastern Pacific," 8 Nature Scientific Reports, Art. No. 13460 (2018), https://www.nature.com/articles/s41598-018-31824-5.

Despite the threat posed by contaminant resuspension, the Corps downplays the risk of these contaminants in the Draft Report, making general assumptions that much of the material to be dredged will be "relatively 'clean' material."[128] Such a conclusion is at odds with the fact that contamination is already known to exist at various sites within the scope of the proposed Project.[129] The Corps should commit to conducting water quality sampling prior to approving this Project, and present the data to the public so that dredging project impacts, including contaminant impacts, can be properly analyzed. Should the Project move forward, the Corps should commit to a more frequent, scheduled sampling program of dredged materials over the anticipated course of construction to ensure water quality does not degrade over time or pose risks to local species in any location where dredged materials are to be deposited. If the Project should move forward, any dredging wastes that are found to be contaminated should be handled as hazardous waste and disposed of accordingly, with meaningful consultation to members of the affected community before embarking on such disposal.

Work Windows

The Corps' reliance on "work windows" as a dredging mitigation measure to avoid species harms is misplaced. The Corps notes throughout the Draft Report that most dredging will be conducted during a proposed window from June 1 through November 30 when certain fish species such as salmonids and herring are less likely to be present.[130] However, the Corps does not clearly state whether these work windows are mandatory or merely recommended, or in what instances it might elect to work outside the designated work windows.[131] The Corps also failed to explain how or whether its proposed dredging activities will be modified in the event that such species are still present during the work windows. For example, outmigrating Chinook salmon and green sturgeon may be affected by dredging activities that fall outside the proposed work window.[132] The Corps has failed to adequately support its conclusion that there will be no significant impact to local species caused by the proposed dredging and in- water construction activities. The Corps should discuss in more detail its historical

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[128] Draft Report, p. 77; see also p. 143-44.

[129] See generally Draft Report, pp. 77-78 (identifying various sources of historical contamination in sediment).

[130] See, e.g., Draft Report, pp. 45-46, 117, 144-45, 147, 150.

[131] See, e.g., Draft Report, Appendix A-5, p. A-1 (PDF p. 194) (noting that there may be circumstances when "in-water work must occur at times other than the approved work window").

[132] See, e.g., Draft Report, Appendix A-1, pp. 4-2, 4-4, 4-7 to 4-8.

record of complying with work windows in this particular navigation channel, as well as impacts that might result should work windows not be practicable.

Furthermore, the Draft Report contains inconsistencies regarding how it selected the proper work windows for the Project. Specifically, the Report notes that the preferred work window for the California least tern (a species listed as endangered both by the state and federal governments) would run from August 1 through March 15 of each year, but that time frame that does not align with the proposed work windows described above (June 1 through November 30). The Report acknowledges that "in- water construction is proposed to occur partially outside of [the work window most suitable for California least terns] under all action alternatives."[133] Given that the Corps' proposed work windows are going to pose potential resource conflicts and exposure for the California least tern, the Draft Report fails to adequately address how the Corps intends to mitigate for such exposure.[134] The Corps' decision to proceed without analyzing the potential for significant impacts to the California least tern represents a violation of NEPA as well as the state and federal Endangered Species Acts.

### 6. Failure to Analyze Impacts of Larger Ships on Wildlife

In the Draft Report, the Corps implies that widening the Turning Basins will lead to reduced overall vessel traffic, because larger ships will carry cargo more efficiently and produce gains in operational efficiency.[135] That assumption is problematic for several reasons. First, it is an unstudied assumption that is not necessarily true, as discussed in Section I.B.1 above. Second, even if it were true, that assumption is not binding on any entity. A change in market demand could lead to an increase in the number of vessels beyond what is forecast and analyzed in the Draft Report, with a concomitant increase in vessel impacts on fish and wildlife species.

Furthermore, even if the Corps is correct that there will be an overall reduction in vessel traffic, the Draft Report nonetheless forecasts an increase in the number of ultra- large container vessels visiting the Port.[136] (In other words, the Draft Report predicts the percentage of ultra-large container vehicles calling on the Port will increase, thereby displacing at least some callings by smaller ships.) The increased presence of these larger vessels—in addition to a potential increase in the size or number of accompanying tending vessels such as tugboats—may increase the risk or severity of oil

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133 Draft Report, p. 141.

134 See Draft Report, p. 151.

135 See Draft Report, pp. 14, 125.

136 Draft Report, p. 101-102.

spills and other discharges, the likelihood of ship strikes on marine mammals, or generate excessive levels of underwater noise, as discussed below. The Corps failed to adequately analyze any of these possibilities in the Draft Report.

Oil Spills and Other Discharges

The Corps entirely failed to analyze the potential for oil spills and other discharges from the ship traffic that will be visiting the Port. This is a remarkable omission given California's long and troubled history of oil spills that have soiled our shorelines over the years. Oil spills have caused great harm to the Bay Area historically: in 1971, a ship spilled 800,000 gallons of bunker fuel in San Francisco Bay, which the California Coastal Commission confirms had a "devastating impact on local species."[137] More recently, a container ship struck the Bay Bridge in 2007 and spilled 58,000 gallons of bunker fuel, which spread across the coastlines of the San Francisco Bay in a matter of hours.[138] Less publicized but frequent smaller oil spills in the region have contributed to "chronic" oil pollution throughout California.[139]

Because the impact of widening the Turning Basins will be to facilitate callings by ever-larger container ships, it stands to reason that even larger oil spills of bunker fuel could result from those ships that will be able to visit the Port with greater frequency as a result of this Project. The Corps should have analyzed the possibility of an increase in the risk of oil spills, as well as the severity and magnitude of such spills in its Draft Report, instead of constraining its analysis merely to construction impacts.

The Draft Report also fails to discuss compliance with EPA's 2013 Vessel General Permit and the Vessel Incidental Discharge Act ("VIDA") passed in 2018. The 2013 Vessel General Permit applies to discharges incidental to the normal operation of commercial vessels greater than 79 feet in length, and remains applicable on an interim basis until EPA publishes standards for compliance with VIDA and the U.S. Coast Guard develops implementing regulations.[140] Because the Corps explicitly anticipates

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137 Cal. Coastal Comm'n, "Oil Spills" (accessed Feb. 3, 2022), https://www.coastal.ca.gov/publiced/oilspills.html.

138 *Id.*

139 Steve Hampton, et al., "Tank Vessel Operations, Seabirds, and Chronic Oil Pollution in California," 31 Marine Ornithology 29 (2003), https://marineornithology.org/PDF/31_1/31_1_4_hampton.pdf.

140 See generally U.S. EPA, "Vessels – VGP" (n.d.), https://www.epa.gov/vessels- marinas-and-ports/vessels-vgp.

that larger vessels will be visiting the Port as a result of the Project, it is obligated under NEPA to discuss the rates of compliance of the larger-sized ships with the Vessel General Permit and to evaluate reasonably foreseeable impacts from their visitation at the Port.

Ship Strikes

The Corps also entirely fails to analyze the threat that shipping traffic associated with this navigation channel poses to marine mammals. Ship strikes serve as a primary cause of mortality for large whales worldwide.[141] Large vessels (*i.e.,* those ≥ 80 m) are responsible for most of the collisions leading to whale death or severe injury.[142] For imperiled populations, "death from vessel collisions may be a significant impediment to population growth and recovery."[143]

Ports in the Bay Area host extensive shipping activity.[144] Incoming ship traffic transits several ecologically rich areas including Cordell Bank, Gulf of the Farallones, and Monterey Bay National Marine Sanctuaries.[145] These areas provide important habitat for blue whales (*Balaeonoptera musculus*), humpback whales (*Megaptera novaeangliae*), and gray whales (*Eschrichtius robustus*).[146] Blue whales and distinct population segments of humpback whales are listed as endangered under the U.S. Endangered Species Act.

In an analysis of ship strikes off the West Coast of the continental United States, scientists found that "the majority of strike mortality occurs in waters off California, from Bodega Bay south and tends to be concentrated in . . . designated shipping lanes

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141 Rockwood, R. Cotton et al., "High Mortality of Blue, Humpback and Fin Whales from Modeling of Vessel Collisions on the U.S. West Coast Suggests Population Impacts and Insufficient Protection," PLoS ONE 12(8): e0183052 (2017); Jensen, Caitlin M. et al., "Spatial and Temporal Variability in Shipping Traffic Off San Francisco, California," 43 Coastal Mgmt. 575 (2015).

142 Jensen *et al.* (2015), *supra*.

143 Rockwood *et al.* (2017), *supra*.

144 Jensen *et al.* (2015), *supra*.

145 *Id.*; Keiper, Carol et al., "Risk Assessment of Vessel Traffic on Endangered Blue and Humpback Whales in the Gulf of the Farallones and Cordell Bank National Marine Sanctuaries: Summary of Research Results," Oikonos (2012).

146 Jensen *et al.* (2015), *supra*.

leading to and from major ports."[147] Shipping lanes off San Francisco pose one of the highest ship strike risks.[148] Between 2005 and 2014, the National Oceanic and Atmospheric Administration documented 15 ship strikes of blue, humpback, and gray whales off the coast of San Francisco.[149] Given that ship strikes are rarely detected, the actual number is likely much higher.[150]

The Army Corps anticipates that the widening of the Turning Basins will facilitate an increased number of visits by ultra-large container vessels.[151] Larger vessels traveling at proportionately higher speeds as they transit to the navigation channel pose a greater risk of harm to marine mammals from ship strikes. Given the grave risk to whale species, including endangered populations of blue and humpback whales, the Corps must analyze how expansion of the Turning Basins may affect the risk of ship strikes.

Noise

The Draft Report also fails to adequately analyze the impacts that increased vessel size may have on noise affecting local wildlife species. The presence of more and larger ships will increase the levels of low frequency noise, particularly close to major shipping lanes and ports.[152] Larger vessels may introduce significantly more noise into the marine environment, particularly if they have larger positioning thrusters and propulsion units.[153]

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147 Rockwood *et al.* (2017), *supra*.

148 *Id.*

149 Jensen *et al.* (2015), *supra*.

150 *Id.*

151 Draft Report, p. 100.

152 Port of Vancouver, "2021 Haro Strait and Boundary Pass voluntary vessel slowdown" (n.d.), https://www.portvancouver.com/environmental-protection-at-the- port-of-vancouver/maintaining-healthy-ecosystems-throughout-our-jurisdiction/echo-program/projects/haro-slowdown/; Putland, R.L., et al., "Vessel noise cuts down communication space for vocalizing fish and marine mammals," 24 Global Change Biology 1708 (2018); Liu, M., et al, "Broadband ship noise and its potential impacts on Indo-Pacific humpback dolphins: Implications for conservation and management," 142 Journal of the Acoustical Society of America 2766 (2017).

153 *See* Kaplan, M.B. & Solomon, S., "A coming boom in commercial shipping? The potential for rapid growth of noise from commercial ships by 2030," 73 Marine Policy 119 (2016).

Kaplan and Solomon (2016) estimate that the growth of commercial ship noise could increase by up to a factor of 1.9 by 2030.[154] The study looked at three segments of the commercial shipping fleet: container ships, oil tankers, and bulk carriers. Continued growth in the number of ships, quantity of goods carried, and distances traveled all feed into the dramatic increase in the predicted ocean noise level.[155] Ocean sound is not distributed evenly across the ocean, but concentrated particularly in port areas like the San Francisco Bay. Because much of the increased noise pollution will be concentrated near the Oakland Harbor, it is particularly important that this Project address the issue of noise pollution from commercial shipping.

The Corps also must conduct a more searching analysis on the effects of project-associated noise on regional wildlife and fisheries species. Noise associated with the Project will be produced by a broad range of construction equipment including dredges, vibratory pile drivers, and tugboats, as well as land-side construction activities including pile driving, drilling, and compaction machinery.[156] Even if the noise produced from this machinery does not result in lethal harms to local species, smelt, salmonids, and green sturgeon might experience behavioral disturbances including reduced foraging, reduced ability to avoid predators, and increased flight/avoidance behavior, as well as neurological stress and hearing threshold shifts. The Corps must discuss in more detail the individual- and population-level implications of such sublethal harms, by themselves and in conjunction with other stressors, as discussed in Section I.B.5 above.

The Army Corps also fails to adequately analyze how shipping noise in the Turning Basins, produced by larger ships in conjunction with tugboats, could affect regional wildlife, including but not limited to marine mammals, local fish, and terrestrial wildlife like avian species. An agency's failure to analyze the noise impacts emanating from tugboats can result in an EA that fails NEPA's "hard look" requirement.[157] In *Cook Inletkeeper*, a federal agency dismissed noise impacts from tugboats in a semi-enclosed estuary of Alaska, contending that marine mammals "are likely habituated to the existing baseline of commercial ship traffic."[158] The district court concluded that the agency had failed to analyze the potential noise impacts from

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154 *Id.*

155 *Id.*

156 Draft Report, p. 194.

157 *Cook Inletkeeper v. Raimondo*, 533 F. Supp. 3d 739, 766 (D. Alaska 2021).

158 *Id.* at 745, 766.

tugboats and their impacts on local marine mammal wildlife.[159] Here, too, ships that approach and use the Turning Basins will produce noise during their approach and while executing turns within the Basins, with assistance from tugboats. The Draft Report estimates that underwater noise associated with ships turning in the Basins can range from 141 to 175 decibels.[160] However, the Draft Report improperly dismisses those noise impacts as no different than existing vessel traffic.[161] The Draft Report fails to consider the noise impacts that emanate from the fact that that the largest vessels (which potentially make more noise) will call on the Port more frequently—a conclusion the Corps had in fact already reached elsewhere in the Draft Report, and which it failed to apply to its noise analysis.[162] The Corps must revisit its analysis regarding noise impacts on local species.

Any increase in shipping noise threatens marine mammal species that visit the San Francisco Bay area. Noise generated by commercial shipping reduces marine mammals' ability to communicate, locate prey, and navigate within their habitat, and induces behavioral changes. The Corps must disclose these impacts. The Corps also should consider developing and implementing a noise budget to protect vulnerable wildlife and fisheries species from noise pollution generated by construction and increases in vessel noise attributable to Port traffic, as more fully discussed in Section I.D below.[163]

Finally, the Corps must also discuss in more detail the behavioral implications of ship traffic and vessel noise on longfin smelt. Although the Draft Report outlines the life history of longfin smelt, it fails to discuss at any length the potential for impacts that

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159 *Id.* at 767-68.

160 Draft Report, p. 89.

161 See Draft Report, pp. 166 (concluding "transport barges carrying dredge material are not expected to generate underwater noise that is different than existing vessel traffic") and 191 ("[T]he noise produced by the turning activity would reasonably be expected to remain very similar to noise generated by existing ships turning.").

162 Draft Report, p. 100.

163 See, e.g., Merchant, N. D., et al., "Marine noise budgets in practice,"11 Conservation Letters 1 (2018); Haver, S.M. et al., "Monitoring long-term soundscape trends in US Waters: The NOAA/NPS Ocean Noise Reference Station Network," 90 Marine Policy 6 (2018); Redfern, J.V., et al., "Assessing the risk of chronic shipping noise to baleen whales off Southern California, USA," 32 Endangered Species Research 153-167 (2017); Viola, S. et al., "Continuous monitoring of noise levels in the Gulf of Catania (Ionian Sea), Study of correlation with ship traffic," 121 Marine Pollution Bull. 97 (2017).

disturbances from barges, dredging crews, and tugboats could have on the species. Given that longfin smelt are currently listed as threatened by the state of California and are a candidate species for listing under the federal ESA, the Corps must conduct a more searching analysis of the ways in which sublethal harms might affect the long- term population viability of threatened longfin smelt.

Marine Mammals

The Corps failed to adequately explore whether it requires an authorization under the Marine Mammal Protection Act ("MMPA") for the Project. The MMPA prohibits the taking of marine mammals, unless the take falls within certain statutory exceptions.[164] The statute defines "take" is as "to harass, hunt, capture, collect, or kill, or attempt to harass, hunt, capture, collect or kill, any marine mammal."[165] Here, the Project will have foreseeable impacts on a wide range of marine mammals including pinnipeds and cetacean species as discussed throughout these comments. All of those species are protected under the MMPA, and some are also protected under the state and federal ESA. The noise impacts from dredging and larger ships could cause take,[166] and any increase in shipping traffic or at-anchor times could also cause take. Because the Project (and any foreseeable future impacts from the project, such as an increase in growth of cargo throughput volume) may harass or harm marine mammals, the Corps should have explored whether MMPA authorization is required before it may proceed with the widening of the Turning Basins.

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164 16 U.S.C. § 1371(a)(3).

165 50 C.F.R. § 216.3; 16 U.S.C. § 1362(13).

166 See, e.g., Jason Gedamke, Ocean Sound & Ocean Noise: Increasing Knowledge Through Research Partnerships, NOAA 2 (2014), available at http://cetsound.noaa.gov/Assets/cetsound/documents/MMC%20Annual%20Meeting%20Intro.pdf; International Maritime Organization, "Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life," (2014), https://cetsound.noaa.gov/Assets/cetsound/documents/MEPC.1-Circ%20883%20Noise%20Guidelines%20April%202014.pdf; L. S. Weilgart, "The Impacts of Anthropogenic Ocean Noise on Cetaceans and Implications for Management," 85 Canadian J. Zoology 1091-1116 (2007), https://cdnsciencepub.com/doi/10.1139/Z07-101; D. Kastak et al., "Noise-Induced Permanent Threshold Shift in a Harbor Seal," 123 J. Acoustical Soc'y of Am. 2986 (2008), https://asa.scitation.org/doi/10.1121/1.2932514.

### C. *The Need for the Project Is Not Clearly Defined*

The Draft Report fails to clearly define the need for the Project. The Corps acknowledges that the Port has already previously hosted the largest existing category of container ships, known as post-Panamax Generation IV vessels, with a TEU capacity of between 15,000 to 23,000 TEUs. Specifically, there were 3 such calls by Generation IV vessels on the Port in 2016, and 4 such calls by those vessels in 2020, the last year for which vessel calling records are available, according to the Corps.[167] Although such callings are extremely uncommon, the Port's own records indicate that it is feasible to use the Turning Basins at their present size for vessel callings by even the largest container ships that currently exist in the commercial shipping fleet.

Given that ultra-large container ships like Generation III and IV vessels are already capable of visiting the Port, it is not clear why the Army Corps is seeking to expand the Turning Basins at this time. Although the Draft Report identifies navigation inefficiencies and timing limitations associated with the largest ships performing maneuvers within the Turning Basins,[168] Generation IV vessel callings on the Port of Oakland to date represent only a tiny fraction of the number of total callings.
Specifically, for the six-year period from 2014 to 2019 (the most recent years for which complete ship calling data is available), Generation IV vessels represented only 0.03% of the 8,449 vessels that called on the Port of Oakland in those years.[169] Generation IV vessels presently visit the Port so infrequently that it strains logic to suggest that those very limited visits by large vessels have produced meaningful or lasting navigational inefficiencies. In short, the mere existence of temporary inconvenience in hosting the ultra-sized container vessels does not adequately support the Corps' stated need for widening of the Turning Basins.

Based on the exceedingly low number of callings by ultra-large container vessels to the Port to date, the only conceivable reason to pursue a widening of the Oakland Harbor Turning Basins is to make navigation more efficient for ultra-large ships that call at the Port. But if navigation becomes more efficient, it is reasonably foreseeable that this could invite increased callings by ultra-large container vessels, which could in turn potentially "debottleneck" cargo throughput, or even facilitate a growth in cargo volume throughput. Either of these results would have significant effects that could

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167 Draft Report, pp. 14-15; see Draft Report, Appendix C, p. 32.

168 Draft Report, p. 17.

169 See Draft Report, p. 15 (Generation IV vessels represent 3 visits out of 8,449 from 2014-2019).

reverberate throughout the local community and beyond, as discussed in Sections I.A and I.B.1 above. If the Army Corps' true motivation is, in fact, to debottleneck operations or induce increased cargo volume to flow through the Port of Oakland, the Draft Report should have defined "increased operations" as the goal, and analyzed the need for the Project and its resultant impacts accordingly. But characterizing the need for this Project as a mere construction improvement—without also acknowledging the potential for impacts on operational output at the Port due to visitation by ever-larger container ships—is disingenuous and violates NEPA.

The Army Corps has a long history of pursuing dredging and port expansion projects, like this one, throughout the country, without first identifying a clear need. For example, the Port of Long Beach—which serves as a port of first call far more frequently than the Port of Oakland for vessels traveling along the Asian-to-West Coast U.S. routes[170]—is already undertaking a major dredging project, partially funded by the Army Corps, that will expand that port's capacity to receive ultra-large container ships like Generation III and IV vessels.[171] (Many members of the local community and environmental organizations opposed the Army Corp's proposed Long Beach dredging and expansion project for similar reasons to those expressed herein, including the unanalyzed possibility that dredging could result in an expansion of that port's operations and shipping throughput volumes.) The dredging project at the Port of Long Beach is expected to be completed in 2027.[172] The Corps fails to discuss in the Draft Report whether the completion of the forthcoming Long Beach dredging project may affect the need for the Project at the Port of Oakland.[173] The Army Corp's failure to consider the implications of other California port expansions that are already in progress also violates NEPA.

For all of these reasons, the Draft Report fails to identify a clear need for the Project. The Corps must withdraw its flawed EA and FONSI, and issue a revised EIS for public comment that clearly identifies whether there is a true "need" for this Project.

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[170] See Draft Report, pp. 12-13.

[171] Hayley Munguia, "Army Corps Recommends Deepening Channels at Port of Long Beach," Long Beach Business Journal (Oct. 9, 2021), https://lbbusinessjournal.com/army- corps-recommends-deepening-channels-at-port-of-long-beach.

[172] Zlatan Hrvacevic, DredgingToday.com, "Port of Long Beach Dredging Project on the Way" (June 25, 2021), https://www.dredgingtoday.com/2021/06/25/port-of-long-beach- dredging-project-on-the-way/.

[173] See Draft Report, pp. 12-13.

### D. *The Draft Report Fails to Consider Meaningful Mitigation Measures*

As outlined above, there are a broad range of significant impacts that the Army Corps failed to consider in its Draft Report. Because the Corps failed to identify those impacts (instead relying on the issuance of a FONSI that is unsupported by adequate analysis), the Draft Report likewise failed to identify meaningful mitigation measures that could help to avoid or reduce those impacts on the affected local community and the environment. CEQ NEPA regulations require agencies to identify mitigation measures that can be undertaken to avoid significant impacts.[174]

Most fundamentally, the Corps should have considered implementing mitigation measures that could address any impacts caused by the potential for expansion of cargo throughput at the Port. CEQ NEPA regulations require agencies to take a hard look at all potential effects of a project that "are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives."[175] As discussed in Section I.B.1 above, it is reasonably foreseeable that expanding the Port's ability to receive larger ships could result in more visits from larger ships that carry more cargo and will take longer to unload, spending more time at the Port, and could also result in heavier reliance on cargo handling equipment, rail, and truck visits to handle the influx of larger cargo loads—all of which could foreseeably result in higher localized concentrations of pollution.[176] The Corps failed to consider these possibilities when developing mitigation measures.

Beyond that fundamental critique, there are several specific mitigation measures that the Corps should have considered, but failed to even propose as a possibility in the Draft Report. First, although the Corps did commit to using electric dredges during the construction phase of the project,[177] it should have required that *all* construction equipment commissioned by the Corps or the Port (including, but not limited to, tugboats, barges, trucks, cranes, tractors, excavators, power packs and generators, cargo handling equipment, etc.) rely on commercially available zero-emissions equipment

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174 See 40 C.F.R. § 1501.6(c).

175 40 C.F.R. § 1508.1(g); see 40 C.F.R. § 1501.2(b)(2); *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 374 (1989).

176 See generally CARB, "Emissions Impacts of Recent Congestion at California Ports," *supra*.

177 See Draft Report, pp. 116-17.

during the construction phase of the project to the greatest extent feasible.[178] This kind of holistic mitigation measure would produce a meaningful improvement in regional air quality because it would reduce reliance on outdated diesel-powered and gasoline- fueled equipment that produces particulate matter pollution and contributes copious greenhouse gases to climate change; it would also simultaneously facilitate compliance with the Corps' environmental justice obligations under Title VI of the Civil Rights Act. and support the emissions reduction strategies in West Oakland's AB 617 plan.[179]

We urge the Corps to consider implementing mitigation measures that commit the Corps and the Port to the use of commercially available zero-emissions vehicles and construction equipment to reduce the air quality impacts that will come from three years of nearly constant ground disturbances around the Turning Basins, as well as the foreseeable potential air quality impacts from expansion of Port operational activity due to debottlenecking or induced growth as described in Section I.B.1 above.[180] Electric dredges alone will not adequately mitigate the air quality impacts from this Project.

Second, the Army Corps should develop a plan jointly with the Port to introduce local air quality monitors closer to the location of the two Turning Basins, which would be operational at a minimum for the duration of the planned construction phase of the Project. The Draft Report notes that "[t]he monitoring station closest to the study area is the Oakland West station, approximately 1.3 miles north." That station is not close enough to detect the air quality emissions from the various construction equipment (barges, tugs, tractors, excavators, power packs and generators, etc.) that will be operating during the planned construction periods at the Turning Basins. The undersigned organizations urge the Army Corps to approach the process of selecting a site for any air quality monitoring in a collaborative way that invites input from and dialogue with residents of the local community as to the location, frequency of testing, and public accessibility of the data. Relatedly, the Corps should review the "best clean air practices for Port operations" website that EPA has made available online to explore

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[178] See, e.g., CARB, Draft State Implementation Plan 2022, *supra*, at p. 72; Bellona, "Zero Emission Construction Machinery – Manufacturers," https://bellona.org/database- emission-free-construction-equipment-by-manufacturer (database accessed Feb. 1, 2022); BAAQMD, "Diesel-Free by '33: Resources for Zero-Emission Vehicles and Equipment," (n.d.), https://dieselfree33.baaqmd.gov/available-equipment.

[179] See *supra*, Section I.B.2.

[180] See Draft Report, p. v (describing estimated 2.5 year duration of construction activity).

other ways that the Corps and the Port can work to mitigate air quality impacts stemming from the Project.[181]

Third, the Army Corps should have worked with the Port to explore mitigation measures that require larger vessels calling at the Port to rely on either zero-emissions technologies currently in development or the cleanest available technology. If use of zero-emissions vessels were independently determined to be infeasible, the Port and Corps should instead consider a mitigation measure that requires vessels to pay in-lieu fees or a certain percentage of their profits or revenues into a fund for zero-emissions demonstration or pilot projects for ocean-going vessels or other hard-to-abate sources of pollution near the Port. For instance, the California Air Resources Board's At-Berth vessel regulation requires ocean-going vessels to control their emissions at-berth with the use of shore power, but includes an "innovative concept compliance option" which allows the regulated entity to alternatively meet compliance by funding projects at or near the Port that achieve equivalent emissions reductions.[182] The Army Corps and Port should have examined the feasibility of such mitigation measures, which would either require adoption of zero-emissions technology outright, or allow for greater contributions to projects that enable accelerated future adoption of zero-emissions technologies. As discussed in Section I.F *infra*, these types of comprehensive mitigation measures can more appropriately be proposed (and members of the public can participate more meaningfully) when NEPA and CEQA analysis are not improperly segmented into separate environmental analyses.

Fourth, the Corps should have considered as mitigation any of the 89 emissions reduction strategies included in West Oakland's AB 617 plan. These strategies include limiting truck hours of operation on local streets, moving truck routes away from residences, improving truck flow and congestion in the face of increasing visits from large container vessels, and planting vegetative borders between particulate matter sources and places where residents live, work, and go to school.[183] By essentially ignoring a plan adopted by BAAQMD, CARB, and WOEIP that reflects agency and community expertise and guidance specific to the Port's nearby communities, the Corps undermines the plan's goals and targets and fails to meaningfully consider relevant and site-specific mitigation measures for this Project.

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[181] See U.S. EPA, "Best Clean Air Practices for Port Operations" (n.d.), https://www.epa.gov/ports-initiative/best-clean-air-practices-port-operations.

[182] CARB, *Final Regulation Order – Control Measure for Ocean- Going Vessels At-Berth* at p. 54, https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/ogvatberth2019/fro.pdf.

[183] *Owning Our Air: The West Oakland Community Action Plan*, *supra*, at pp. 6-3, 6-22, 6-26.

Fifth, the Corps should consider exploring a partnership with other state, federal and international bodies to facilitate the creation of a zero-carbon trade corridor between the Port and Asian markets. The United States recently committed to pursuing the creation of such "green shipping corridors" in the Clydebank Declaration during the 2021 Glasgow Climate Change Conference (COP 26).[184] The Corps' proposed Project at the Port of Oakland represents a meaningful opportunity to pursue the goals of the Clydebank Declaration—not only because of the significant Trans-Pacific trade that the Port of Oakland engages in,[185] but also because the Draft Report and other projections make the fundamental assumption that there will be constant growth in total container cargo throughput.[186] There has been significant progress and momentum on zero- carbon and zero-emissions shipping in the past two years alone. For example, major international shipping company Maersk recently revised forward their target date for full decarbonization from 2050 to 2040,[187] and announced the introduction of eight new carbon-neutral large ocean-going container vessels that will be introduced starting the first quarter of 2024.[188] Recent reports have also highlighted the potential to decarbonize maritime shipping, including through zero-emissions solutions such as green hydrogen or ammonia plus fuel cells.[189] Exploring this type of mitigation measure would have meaningful air quality and climate impacts.

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184 COP 26: Clydebank Declaration for Green Shipping Corridors (Nov. 10, 2021), https://www.gov.uk/government/publications/cop-26-clydebank-declaration-for-green- shipping-corridors/cop-26-clydebank-declaration-for-green-shipping- corridors#signatories.

185 See Draft Report, pp. 12-13 (describing frequency of Trans-Pacific routes involving the Port of Oakland).

186 See, e.g., Draft Report, p. 95 (indicating Corps' expectation that TEU volume at the Port will continue to increase by 2.1% annually); MAQIP Update, *supra*, at p. 4 (indicating TEU growth rates between 2.4% to 3.0% in the coming years).

187 Reuters, "Maersk Speeds Up Decarbonisation Target by a Decade" (Jan. 13, 2022), https://www.reuters.com/markets/commodities/maersk-moves-net-zero-target- forward-by-decade-2040-2022-01-12/.

188 Maersk, "A.P. Moller – Maersk accelerates fleet decarbonisation with 8 large ocean- going vessels to operate on carbon neutral methanol" (Aug. 24, 2021), https://www.maersk.com/news/articles/2021/08/24/maersk-accelerates-fleet- decarbonisation.

189 World Bank, *The Potential of Zero-Carbon Bunker Fuels in Developing Countries* (Apr. 2021), https://openknowledge.worldbank.org/handle/10986/35435.

Sixth, the Corps should consider developing and implementing acoustic monitoring together with a noise budget to protect vulnerable wildlife and fisheries species from noise pollution generated by ship traffic associated with the Oakland Harbor.[190] Quantitative management targets identified under the budget could form the basis for Port regulations or incentive-based sound reduction initiatives.[191]

Seventh, the Corps should consider working with the Port to require that incoming and outgoing vessels adhere to a set speed limit when transiting through shipping lanes to and from the Port. Implementing such a measure would reduce the possibility of ship strikes, mitigate some of the noise concerns, and reduce emissions.

Finally, in addition to the specific ideas outlined above, we urge the Army Corps to think more deeply about and identify mitigation measures to address the serious effects that sea level rise will have on the Port and local communities in the decades to come. The Draft Report dismisses sea level rise as essentially irrelevant to the Project on the theory that it will be a "net positive [to deep draft navigation] due to the increased channel depth and reduced channel maintenance needs."[192] That short- sighted analysis fails to consider the potential for major impacts to the Port's operations and local communities, should critical shoreline infrastructure be submerged. As the federal agency tasked with regulating work in jurisdictional wetlands adjacent to coastal communities throughout the United States, the Corps should be a leader in addressing and mitigating the effects of sea level rise, not dismissing it as a convenient side effect to global shipping.

### E. *The Draft Report Fails to Consider a Reasonable Range of Alternatives*

By failing to properly define the purpose, need, and scope of this Project, the alternatives and mitigation measures considered by the Corps in the Draft Report are far too narrowly constrained. The alternatives analysis in the Draft Report is therefore wholly inadequate and the Corps must address these deficiencies.

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190 See, e.g., Merchant et al. 2017, *supra*; Haver et al. 2018, *supra*; Redfern et al. 2017, *supra*; Viola et al. 2017, *supra*.

191 *Cf.* Heise, K.A. et al. Proposed Metrics for the Management of Underwater Noise for Southern Resident Killer Whales Coastal Ocean Report Series (2) (Ocean Wise, Vancouver, 2017) (providing example of what metrics could look like for another cetacean species).

192 Draft Report, p. 96.

NEPA regulations require the Corps to consider a reasonable range of alternatives that would mitigate the environmental and other impacts from the Project, including consideration of choosing the no-action alternative.[193] An agency may choose the no-action alternative even though it does not fulfill a project's purpose and need.[194] The "agency's decision may be based on any relevant considerations of law or policy" and "as long as [those considerations] are explained in the decision document" the decision to choose the no-action alternative is justified.[195]

All of the Corps' alternatives are virtually the same, save the no-action alternative, because each basically considers different widening areas:

- **Alternative A**: no-action alternative
- **Alternative B**: Inner Harbor Only (Inner Harbor Variation 3), with beneficial placement of eligible material
- **Alternative C**: Outer Harbor Only (Outer Harbor Variation 8), with beneficial placement of eligible material
- **Alternative D-1**: Inner and Outer Harbor (Inner Harbor Variation 3 and Outer Harbor Variation 8), with beneficial placement of eligible material
- **Alternative D-2**: Inner and Outer Harbor (Inner Harbor Variation 3 and Outer Harbor Variation 8), with beneficial placement of eligible material and the electrification of dredges[196]

The Draft Report thus fails to conduct a true alternatives analysis or consider meaningful mitigation measures beyond moving dredged material elsewhere and using electric dredges. For example, the Corps could have considered an alternative that addresses impacts from outdated diesel-powered and gasoline-fueled equipment commonly used during construction projects by relying on commercially available zero- emissions equipment instead. The Corps also could have considered alternatives consistent with the emissions reduction measures in West Oakland's AB 617 plan, or that require visiting vessels to limit ship speeds to address ship strikes that cause marine mammal deaths. Instead of moving dredged material elsewhere, the Corps could have considered an alternative that uses the dredged material to raise the Bay's

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193 40 C.F.R. § 1502.14(c), (e).

194 See, e.g., *Agdaagux Tribe of King Cove v. Jewell*, 128 F. Supp. 3d 1176, 1194 (D. Alaska 2015).

195 See, e.g., *id.*

196 Draft Report, p. 113.

shoreline and protect local communities against flooding from rising sea levels.[197] Without proper consideration of these and other reasonable alternatives, the analysis in the Draft Report fails to comply with NEPA.

F. ***The Draft Report Fails to Coordinate NEPA and CEQA Review***

The Corps failed to adequately coordinate NEPA review with review under the California Environmental Quality Act ("CEQA"). Federal regulations require that "to the *fullest extent practicable* . . . , [federal] agencies shall cooperate with State . . . agencies to reduce duplication between NEPA and comparable State . . . . requirements."[198] The regulations further provide that "[s]uch cooperation shall include, to the fullest extent practicable, joint environmental impact statements."[199] Combining NEPA and CEQA review is so important that the U.S. Executive Office of the President and the California Governor's Office of Planning and Research jointly issued a report specifically on the topic of how to integrate state and federal environmental reviews under NEPA and CEQA.[200]

Here, the Corps issued its Draft Report and FONSI on an entirely separate timeline from the forthcoming CEQA process that the Port will be overseeing as lead agency beginning later in 2022.[201] The Corps did not adequately justify its decision to segment out NEPA review from the forthcoming CEQA process. The Corps failed to demonstrate in its Draft Report that it sought to cooperate with the state CEQA process "to the fullest extent practicable."

The Army Corps' failure to coordinate NEPA and CEQA review has a detrimental impact on environmental review by members of the public. It is inefficient for members of the public to review two separate sets of environmental documents supporting the Project, especially when each will presumably be separately supported by voluminous and lengthy appendices. In particular, various state and federal

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197 P. Rogers, "San Francisco Bay Report Decries Waste of Protective Sediment" (Apr. 13, 2021), https://www.marinij.com/2021/04/13/san-francisco-bay-report-decries-waste-of-protective-sediment/.

198 40 C.F.R. § 1506.2(c), emphasis added.

199 *Id.*

200 U.S. Executive Office of the President & Cal. Governor's Office of Planning & Research, "NEPA and CEQA: Integrating Federal and State Environmental Reviews" (Feb. 2014), https://opr.ca.gov/docs/NEPA_CEQA_Handbook_Feb2014.pdf.

201 See generally U.S. Army Corps of Eng'rs, "Turning Basins Widening Study: Community Stakeholder Meeting #2" at Slide 17 (Jan. 12, 2022).

government agencies with oversight authority over aspects of the Project may need to weigh in on both the NEPA and CEQA documentation, which will compound the inefficiencies for members of the public who intend to track both the federal and state processes simultaneously.

Furthermore, segmenting out NEPA and CEQA review makes it less feasible for commenters to identify meaningful mitigation measures: some of the mitigations that could best offset the impacts from increased vessel size visitation at the Port would necessarily require joint action by the Corps and the Port, which either entity alone may not be able to pursue. It is also conceivable that any mitigation measures the Port selects during its CEQA review process could ultimately change the scope of the Project to a degree that would require renewed analysis by the Corps under NEPA. All of these inefficiencies could have been avoided if the Corps had pursued a combined review under NEPA and CEQA from the outset.

We urge the Corps to withdraw its flawed Draft Report and FONSI, and to issue a full EIS and an Environmental Impact Report jointly with the Port as the lead state agency.

### G. *The Army Corps Failed to Provide Adequate Public Comment Opportunities*

The Corps should re-open the unnecessarily brief comment period for the Draft Report to allow for more meaningful public participation. Incorporating and inviting public participation into the government's environmental decisionmaking is a core element of the NEPA process. CEQ regulations state that agencies must "[m]ake diligent efforts to involve the public" when implementing NEPA.[202] The opportunity to comment on draft environmental documents is one of the main avenues by which the public can participate in the NEPA process.

The Army Corps' comment period was inadequate under NEPA, because the Corps provided too few public participation meetings and the comment period was too short given the factual circumstances and the complexity of the information provided.

First, as far as the undersigned organizations are aware, the Army Corps offered only two public participation meetings regarding this Project: one in late August 2021 and another in mid-January 2022, the latter of which fell nearly four weeks *after* the comment period for the Draft Report had already opened on December 17, 2021. The

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[202] 40 C.F.R. § 1506.6(a).

Army Corps failed to provide adequate notice of these meetings or to alert members of the affected communities about the scope of the proposed Project or the potential impacts. The Corps' failure to do so represents a violation of NEPA and undermines the goals and obligations of AB 617 and Title VI.

Second, the Corps designated an unnecessarily short timeframe to submit comments, which constrained the ability of community groups to develop meaningful comments. The Corps issued the Draft IFR/EA on December 17, 2021 shortly before a major national holiday period when schools are closed and many organizations have holiday breaks and are not working at full capacity. The holidays, including the travel period surrounding Christmas and New Year's Day, removed essentially two weeks of time to review the Draft IFR/EA.

Furthermore, the ongoing COVID-19 pandemic has led to office and school closures throughout the country, with COVID cases peaking at an all-time national high in early January 2022.[203] As a result, members of the public as well as attorneys and support staff at organizations engaged in this Project have been forced to make necessary adjustments, including alternative childcare arrangements and coordination for timely filing of comments. This has made it even more challenging to review and prepare comments in the allotted time.

Although the Army Corps extended the deadline to submit written comments by 14 days (from the originally designated January 31, 2022 deadline to February 14, 2022) upon the request of some of the undersigned organizations as well as U.S. EPA, that limited 14-day extension does not make up for the unnecessarily abbreviated timeline for comment submission in light of the timing constraints and public outreach inadequacies outlined above. The Draft IFR/EA is 243 pages and includes 8 appendices with at least 544 additional pages, bringing the total to at least 787 pages of material. It takes a substantial amount of time to review large amounts of materials and provide meaningful comments. The Corps did not allow adequate time to review the supporting materials.

For these reasons, the undersigned organizations respectfully request that the Army Corps withdraw its flawed Draft Report, issue a substantially improved draft

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[203] Lisa Shumaker, "U.S. Reports 1.35 Million COVID-19 Cases in a Day, Shattering Global Record," Reuters (Jan. 10, 2022), https://www.reuters.com/business/healthcare-pharmaceuticals/us-reports-least-11-mln-covid-cases-day-shattering-global-record- 2022-01-11/.

Environmental Impact Statement jointly with an Environmental Impact Review with the Port, and reopen the comment period on a draft EIS to allow community groups and those affected by the Turning Basins proposal to have more time to develop meaningful comments that will enable the Corps and the Port to improve their environmental review.

## II. The Draft Report Fails to Comply with the Clean Water Act

The Army Corps also failed to comply with the Clean Water Act ("CWA"), 33 U.S.C. § 1251 *et seq.*, in several respects, many of which overlap with the NEPA compliance issues described above. First and foremost, the Corps has failed to clearly articulate whether and under what circumstances it may seek in the future to obtain any necessary CWA permits. The Draft Report says only that "all dredge material will be placed at a permitted upland beneficial reuse site or landfill," without specifying the location or possible alternative placements.[204] Based on that statement alone, the Corps elected not to provide a 404(b)(1) analysis with the issuance of the Draft Report.[205] The Corps also states that it will "obtain a water quality certification for the [P]roject [pursuant to CWA section 401]. . . *if applicable* . . . after the feasibility phase, in the pre- construction design phase."[206] The Corps' approach to compliance with the Clean Water Act in the Draft Report is flawed.

First, the Corps has adopted an overly narrow definition of this Project's scope and purpose, as well as an inadequately articulated need for the Project, both of which are more fully discussed in Sections I.A and I.C above. By artificially defining this Project as confined to a mere construction activity, the Corps disregards myriad potential water quality impacts that are broader than the construction activities themselves. The Draft Report ignores the possibility that the construction or future operational phases of the Project could require or result in the discharge of material into jurisdictional waters, or otherwise cause discharges that require CWA permitting.[207] The excessively narrow scope of the Draft Report violates the CWA.

Second, the Draft Report inappropriately postpones analysis of the need for any water quality certification permitting until the pre-construction design phase of the Project, which deprives members of the public from having adequate opportunity

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204 See Draft Report, p. 200.

205 *Id.*

206 *Id.*, emphasis added.

207 See, e.g., *supra*, Sections I.B.1, I.B.5, and I.B.6.

under NEPA to review and comment on that analysis.[208] In so doing, the Draft Report fails to provide adequate information that would enable members of the public to evaluate whether the Project will conform to the EPA's Section 404(b)(1) guidelines.[209] The Army Corps should have included a CWA Section 404(b)(l) alternatives analysis within the Draft Report to provide a more meaningful opportunity to evaluate potential impacts.

Third, if the Corps ultimately does need to seek a permit under the CWA for any portion of the Project activities, the Draft Report fails to demonstrate that it has selected the "least environmentally damaging practicable alternative" ("LEDPA") to achieve the Project's purpose. The Corps is required to make a LEDPA finding before it may approve any Section 404 permit under the CWA.[210] Because the Corps has deferred a determination about whether it will need to rely on a Section 401 or 404 permit until a later stage of the Project that post-dates the issuance of this Draft Report, the undersigned organizations do not have adequate information about the dredging or water quality certification alternatives the Corps may consider or the environmental impacts of those options.[211] At a minimum, the Draft Report failed to include any analysis of the potential impacts of debottlenecking and/or induced expansion on Port operations due to the Report's improperly constrained scope.[212] If such analysis had been included, that would have facilitated a determination about whether the proposed Project and the proposed dredging waste disposal locations would represent the LEDPA under the CWA. The Corps' omission of such analysis frustrates the goals of the CWA and impedes public participation.

Fourth, there is inadequate information in the Draft Report about whether this Project could reasonably fulfill the Army Corps' public interest review, should a CWA permit be required at some point in the future. The CWA and the Army Corps' own regulations require that the Army Corps may issue a CWA permit only when a

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208 Draft Report, pp. 181-82, 200.

209 See, e.g., 33 C.F.R. § 323.6 (requiring district engineer to "review applications for permits for the discharge of dredged or fill material into waters of the United States in accordance with guidelines promulgated by the Administrator, EPA, under authority of section 404(b)(1) of the CWA"); 40 C.F.R. § 230.12 (requiring disposal sites for discharge of dredged or fill material to comply with EPA guidelines).

210 See 40 C.F.R. § 230.10(a).

211 See *supra*, Section I.E. (discussing how the Draft Report inadequately explores a range of alternatives that could achieve the Project's goals).

212 See generally *supra*, Section I.B.1.

proposed project will meet certain environmental standards.[213] The Corps' regulations require it to consider numerous factors, including several most relevant here: "conservation, . . . aesthetics, general environmental concerns, wetlands, . . . fish and wildlife values, flood hazards, . . . land use, . . . shore erosion and accretion, . . . water quality, . . . and, in general, the needs and welfare of the people."[214] The Draft Report largely skims over many of these factors—in part by inappropriately confining the scope of the Project to construction impacts only—and fails to adequately analyze the adverse impacts of the Project on these factors. Particularly concerning is the Army Corps' failure to consider environmental justice issues ("the needs and welfare of the people") in developing the Draft Report, as more fully discussed in Section I.B.2 above; the impacts to local and protected species discussed in Sections I.B.5 and 6 above also lack adequate analysis. These and other omissions in the Draft Report prevent members of the public from being able to weigh in on whether the Corps will perform an appropriately thorough public interest review as required by the CWA.

For all of these reasons, the Army Corps should withdraw its flawed Draft Report and develop a more thoughtful and extensive analysis of the potential water quality impacts that could emanate from the Project to ensure compliance with the Clean Water Act.

## Conclusion

The Draft Report for the Project fails to adequately define the scope of or need for the project, to adequately analyze the potentially significant impacts of the Project, or to consider meaningful mitigation measures or a reasonable range of alternatives, and therefore, it fails to comply with NEPA and the CWA. The Corps must revise the Draft Report to include a fulsome analysis of environmental justice impacts that could result from widening the Turning Basins, including analysis of the foreseeable implications of debottlenecking or an expansion in freight volume throughput at the Port. The Draft Report must also be revised to fully address, disclose, and mitigate the significant environmental effects of the Project, including the operational impacts of expanding freight activity at the Port, as well as impacts on air quality, climate change and greenhouse gas emissions, water quality impacts, and endangered species and marine mammal impacts, as described above.

We urge the Corps to fulfill its duties under NEPA and the CWA by withdrawing the flawed Draft Report and FONSI, and issuing a meaningful draft EIS

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213 See generally 33 C.F.R. § 320.1 to 320.4; see also 33 U.S.C. § 1341.

214 33 C.F.R. § 320.4(a)(1).

that informs the public, and particularly communities most impacted by the Project, about the associated impacts of widening the Turning Basins, and proposes meaningful mitigation measures. The Corps should expand public comment opportunities to ensure that these proposals can be vetted by members of the public.

Thank you for your consideration of these comments, and please do not hesitate to reach out if you have any questions.

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## *INDEX OF ATTACHMENTS IN SUPPORT OF COMMENTS*

WOEIP, Earthjustice, Sierra Club, Union of Concerned Scientists, & Center for Biological Diversity submit the following documents into the record regarding the Oakland Harbor Turning Basins Widening Project together with their February 14, 2022 comments. All attachments listed below are viewable and downloadable at the following link:

https://earthjustice.sharefile.com/d-s0bbb84e31cea4941b0d19d6e7170f149

### Scientific, Academic, and Policy Studies

1. Alava, J.J. et al., "Projected Amplification of Food Web Bioaccumulation of MeHg and PCBs Under Climate Change in the Northeastern Pacific," 8 Nature Scientific Reports, Art. No. 13460 (2018).

2. Environmental Defense Fund, "Air Pollution's Unequal Impacts in the Bay Area" (Mar. 31, 2021).

3. Gedamke, Jason, "Ocean Sound & Ocean Noise: Increasing Knowledge Through Research Partnerships," NOAA 2 (2014).

4. Hacegaba, Noel, "Big Ships, Big Challenges: The Impact of Mega Container Vessels on U.S. Port Authorities" (June 30, 2014).

5. Hall, A.J. et al., "Predicting the Effects of Polychlorinated Biphenyls on Cetacean Populations Through Impacts on Immunity and Calf Survival," 233 Envtl. Pollution 407 (2018).

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17. Liu, M., et al, "Broadband ship noise and its potential impacts on Indo- Pacific humpback dolphins: Implications for conservation and management," 142 Journal of the Acoustical Society of America 2766 (2017).

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Spectrometry Method and Application to Field Samples," 70 Archives Envtl. Contamination & Toxicology 9 (2016).

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20. Putland, R.L., et al., "Vessel noise cuts down communication space for vocalizing fish and marine mammals," 24 Global Change Biology 1708 (2018).

21. Redfern, J.V., et al., "Assessing the risk of chronic shipping noise to baleen whales off Southern California, USA," 32 Endangered Species Research 153e167 (2017).

22. Rockwood, R. Cotton et al., "High Mortality of Blue, Humpback and Fin Whales from Modeling of Vessel Collisions on the U.S. West Coast Suggests Population Impacts and Insufficient Protection," PLoS ONE 12(8): e0183052 (2017)

23. Ross, P.S. et al., "High PCB Concentrations in Free-Ranging Pacific Killer Whales, Orcinus orca: Effects of Age, Sex, and Dietary Preference," 40 Marine Pollution Bull. 504 (2000).

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27. Wenger, Amelia S., et al., "A Critical Analysis of the Direct Effects of Dredging on Fish," 18 Fish & Fisheries 967 (Sept. 2017).

## State, Federal, International, and Intergovernmental Documents

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EXHIBIT B

**EDWARD W. CARR, PH.D.**

## Biography

Dr. Carr is the Vice President of Research and Operations at Energy and Environmental Research Associates, LLC. He is an expert in emissions, air quality, and economic analysis in the mobile, non- road, and biogenic sectors. He has worked on transportation air quality, fuels, and emissions inventory projects for federal, state, NGO, and industry clients. Dr. Carr's recent publications include work on the air quality and health impacts of ship fuels, economic incentives for alternative fuels in the shipping industry, and macroeconomic modeling of transportation electrification and alternative fuels. He received his Master of Marine Policy, and Ph.D. in Marine Studies from the University of Delaware (Newark, DE) and an A.B in Biology from Bowdoin College (Brunswick, ME).


# Oakland Harbor Turning Basins Widening: Peer review services for evaluating Air Quality, Emissions, and Economic Analysis: Operations and Emissions

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This document provides expert peer-review consulting services of the U.S. Army Corps of Engineers (USACE, or the Corps) 2023 "Oakland Harbor Turning Basins Widening: Draft Integrated Feasibility Report and Environmental Assessment"[1] ("the EA") and relevant Appendices.

Specifically, this technical memo focuses on the following question(s):

1) What is the emissions profile of a typical ultra-large container vessel when it visits a port?
    a) How does the fuel and technology used by ultra-large vessels compare to the fuel and technology used by vessels that presently visit the Port of Oakland?
    b) What are the operational differences between ultra-large vessels and vessels that presently visit the Port of Oakland?
        i) Do AIS data show that ultra-large vessels are associated with longer periods of time idling, waiting at berth, or waiting for their next call assignments?
        ii) What differences may be expected in terms of greater use of cargo handling equipment to move larger amounts of cargo at once?
        iii) What impacts may there be to truck and rail movements in terms of congestion of equipment, truck, and rail due to increased, simultaneous operation?
    c) How might truck trips change due to visitation by ultra-large container vessels?

Project Overview

The EA's purpose is to determine the technical, environmental, and economic feasibility of expanding and modifying the Inner Harbor Turning Basin and the Outer Harbor Turning Basin, shown as A and B in Figure 1, respectively.

Figure 1: Port of Oakland navigation features, including the Inner Harbor Turning Basin (A) and Outer Harbor Turning Basin (B). Source: Port of Oakland.

[1] EA and Appendices available at https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Current- Projects/Oakland-Harbor-Turning-Basins-Widening/

Expansion of the turning basins is proposed to allow larger Fourth Generation (Gen IV) Post-Panamax vessels, which do not fit through the Panama Canal, to maneuver more easily within the Port. Gen IV vessel characteristics are shown in Table 1. Gen IV vessels range from 15,000 to 23,000 twenty-foot equivalent units (TEUs) and the project design vessel is estimated to be around 19,000 TEUs. Presently, port operators and Harbor Pilots state that each Gen IV vessel creates delays of 3-4 hours per transit due to Pilot restrictions.

Gen IV vessels necessitate "additional tugs, pilots, and specific schedules to operate safely" due to the size of the turning basin.[2] Tide and current conditions further restrict the movements of Gen IV vessels at the Port of Oakland.

Table 1: Post-Panamax Gen IV vessel

| Post-Panamax Gen IV | Design Vessel | From | To |
|---|---|---|---|
| Beam (ft) | 193 | 168 | 200 |
| LOA (ft) | 1,310 | 1,295 | 1,315 |
| Draft (ft) | 52.5 | 52.5 | 52.5 |
| TEUs | 19,000 | 15,000 | 23,000 |

Research Questions

What is the emissions profile of a typical ultra-large container vessel when it visits a port?

**MSC Anna**

The MSC Anna was the largest container vessel ever to call at the Port of Oakland. The vessel characteristics of the MSC Anna, and the MSC Amsterdam are shown in Table 2 below.

Table 2: MSC Amsterdam and MSC Anna Vessel Specifications

| Vessel Name | MSC Anna | MSC Amsterdam |
|---|---|---|
| IMO Number | IMO9777204 | IMO9606338 |
| Deadweight Tonnage | 185,503 DWT | 185,541 DWT |
| Gross Tonnage | 187,587 GT | 176,490 GT |
| TEU Capacity | 19,200 TEU | 16,652 TEU |
| Service Speed (kts) | 14.5 knots | 23 knots |
| Main Engine Power (kW) | 60,140 kW | 59,780 kW |
| LOA (m) | 400 m (1,312 ft) | 399 m (1,309 ft) |
| Beam (m) | 58.6 m (192.3 ft) | 54 m (177.2 ft) |
| Draft (m) | 16m (52.5 ft) | 16 m (52.5 ft) |

[2] EA Appendix C, Section 2.5.1.

## MSC Anna: Port Call Description

The MSC Anna called on April 16, 2020, passing under the Golden Gate Bridge at 20:03 local time. The MSC Anna transited at 10-12 kts initially to the west of the Golden Gate, with speeds dropping to 6-8 kts under the Golden Gate Bridge. Speeds varied between 6 and 10 kts transiting the bay, and then began to slow down to around 3 kts after passing under the Bay Bridge and entering the Port, maneuvering in the approach to the Inner Harbor Channel. MSC Anna reached the berth at the OICT at around 21:25 local time, a transit time of 1h22m. MSC Anna was observed to remain at berth for around 31h. For the outbound journey, MSC Anna left the berth at around 04:20 and passed under the Golden Gate Bridge at 06:11

## MSC Anna: Speed Over Ground and Engine Load

Main engine loads for the MSC Anna are between 20 - 25% west of the Golden Gate Bridge dropping to 8% under the bridge, and maintaining load at 8 - 15% until Alcatraz. Main engine load drops from 12.5% at Alcatraz to around 6% by the time the vessel moves under the Bay Bridge (Figure 2).

For the outbound journey, MSC Anna left the berth at around 04:20 and passed under the bridge at 06:11 traveling at a speed of 15.8 kts. Outbound the MSC Anna main engine load was around 12% under the Bay Bridge (SOG = 8.9 kts), 27% at Alcatraz (SOG = 11.7 kts), and 68% (SOG = 15.8 kts) outbound under the Golden Gate Bridge


Figure 2: Speed over ground positions and main engine load factor as the MSC Anna calls at the Port of Oakland

### MSC Anna: Default Auxiliary Engine Loads

Data on the size of the MSC Anna's auxiliary engines are not publicly available, but the 2021 emission inventory for the Port of Los Angeles[3] lists the following default auxiliary engine loads (Table 3) for a 19,000 TEU container ship, which we may reasonably expect to be similar to the MSC Anna. We assume that MSC Anna plugged into shore power and auxiliary engine berth hotel loads and corresponding vessel emissions were zero, with any emissions associated with the shore power system and electricity grid.

Table 3: Default auxiliary engine load assumptions for 16,000 TEU and 19,000 TEU container vessels from the 2021 Port of Los Angeles emission inventory

| **Mode** | **16,000 TEU Load (kW)** | **19,000 TEU Load (kW)** |
|---|---|---|
| Transit | 1,793 kW | 1,950 kW |
| Maneuvering | 2,179 kW | 2,275 kW |
| Berth Hotelling | 1,150 kW | 1,350 kW |
| Anchorage Hotelling | 1,271 kW | 1,475 kW |

The vessel was able to pull directly into the berth upon arrival, with very limited maneuvering, and no time at the anchorage. Therefore these emissions estimates represent a conservative lower bound for round trip vessel emissions for a Gen IV container ship calling at the Port of Oakland.

### Default Anchorage and At-Berth Emissions

For the MSC Anna, the largest vessel to call on the Port of Oakland, if the vessel does not use shore power for any reason, it may be expected to consume around 0.273 MT of MDO/MGO fuel per hour (Table 4), emitting around 0.80 MT $CO_2$ per hour, and 0.019 MT NOx per hour at berth. Were a vessel like the MSC Anna to visit the anchorage it may be expected to emit around 0.88 MT $CO_2$ and 0.021 MT NOx hourly.

Table 4: At berth and anchorage $CO_2$ and NOx emissions for the MSC Amsterdam and the MSC Anna based on default auxiliary load assumptions

| | $CO_2$ (MT hourly) | | NOx (MT hourly) | | $PM_{10}$ (MT Hourly)[4] | |
|---|---|---|---|---|---|---|
| | At Berth | Anchorage | At Berth | Anchorage | At Berth | Anchorage |
| MSC Amsterdam | 0.68 | 0.75 | 0.017 | 0.018 | 0.0035 | 0.0039 |

| | | | | | | |
|---|---|---|---|---|---|---|
| MSC Anna | 0.80 | 0.87 | 0.019 | 0.021 | 0.0041 | 0.0045 |

3

https://kentico.portoflosangeles.org/getmedia/f26839cd-54cd-4da9-92b7-a34094ee75a8/2021_Air_Emissions_Invento ry

[4] Per EPA's Port Emissions Inventory Guidance, $PM_{2.5}$ makes up 92% of $PM_{10}$ for Category 3 ocean-going vessels. See Section 3.5.3 of https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1014J1S.pdf

Based on AIS speeds observed, while in the San Francisco Bay we estimate that the MSC Anna's main and auxiliary engines consumed as much as 3.97 MT of fuel (Table 5), most likely 0.1% S MGO/MDO, in compliance with the North American ECA and CARB regulations. Carbon dioxide emissions associated with fuel consumption at around 12.72 MT $CO_2$ along with 0.34 MT $NO_x$.[5] Main + auxiliary engine emissions are shown in the Table 5 below, broken down by emissions in each mode of operation observed.[6] Estimated fuel consumption and emissions are for the vessel only, and do not account for operations of harbor craft associated with the vessel's entrance and clearance of the port.

Table 5: Main plus auxiliary engine emissions for the MSC Anna calling at the Port of Oakland

| Species | **Berth** | **Cruise** | **Maneuvering** | **Total** |
|---|---|---|---|---|
| Total Fuel Consumption (MT) | - | 3.50 | 0.47 | 3.97 |
| $CO_2$ Emissions (MT) | - | 11.21 | 1.51 | 12.72 |
| $NO_x$ Emissions (MT) | - | 0.31 | 0.04 | 0.34 |
| $PM_{10}$ Emissions (MT) | - | 0.01 | 0.01 | 0.02 |

## MSC Amsterdam

The MSC Amsterdam has very similar engine characteristics to the MSC Anna, the largest ship ever to call at the Port of Oakland, described in the prior section. The vessel lengths are nearly identical, the beam (width) of the MSC Anna is 4.6 m, or 15.1 feet, wider than the MSC Amsterdam. From an energy perspective, main engine power differs by just 360kW between the two vessels. We include the MSC Amsterdam here as a second example of movements and emissions of a large container ship. The vessel characteristics of the MSC Amsterdam are shown in Table 6.

Table 6: MSC Amsterdam and MSC Anna Vessel Specifications

| Vessel Name | MSC Amsterdam |
|---|---|
| IMO Number | IMO9606338 |
| Deadweight Tonnage | 185,541 DWT |
| Gross Tonnage | 176,490 GT |
| TEU Capacity | 16,652 |
| TEU Service Speed (kts) | 23 knots |

| | |
|---|---|
| Main Engine Power (kW) | 59,780 |
| kW LOA (m) | 399 m (1,309 ft) |
| Beam (m) | 54 m (177.2 ft) |
| Draft (m) | 16 m (52.5 ft) |

[5] MSC Amsterdam and MSC Anna both have keel laid dates in 2015, and are therefore Tier II vessels, with a slow speed engine $NO_x$ emission rate of 14.4 $g.kWh^{-1}$, adjusted for low loads.
[6] We define the western boundary of emissions as from when a vessel passes under the Golden Gate Bridge inbound and outbound, per the 2020 Port of Oakland Emission Inventory

## MSC Amsterdam: Port Call Description

The MSC Amsterdam was the largest container vessel to call at the Port of Oakland in 2022 based on analysis of automatic identification system (AIS) data obtained from the Marine Cadastre[7] for all of 2022. We include the MSC Amsterdam as a second example of vessel movements by large container ships calling at the Port of Oakland. MSC Amsterdam was not observed leaving the port in the AIS data we sampled, and thus only the inbound leg of the voyage is available.

The MSC Amsterdam called on May 21, 2022, passing under the Golden Gate Bridge at 17:48 local time with a reported draft of 10.9 m, or 35.8 ft. MSC Amsterdam reached the berth at the OICT at around 18:55 local time, a transit time of 1h07m.

## MSC Amsterdam: Speed Over Ground and Engine Load

The MSC Amsterdam passed under the Golden Gate Bridge at 13-14 kts until reaching Alcatraz, where the main engine load was 18%, then began to slow down to around 8.5 kts under the Bay Bridge (load = 8%). Entering the Port, maneuvering speed dropped to around 3.5 kts approaching the Inner Harbor Channel (Figure 3).

Main engine loads for the MSC Amsterdam are between 20 - 25% from west of the Golden Gate Bridge to just east of Alcatraz. Main engine load drops from 21.1% at Alcatraz to under 10% by the time the vessel moved under the Bay Bridge.


Figure 3: Speed over ground, positions, and main engine load for the inbound leg of the MSC Amsterdam calling at the Port of Oakland

[7] https://marinecadastre.gov/ais/

### MSC Amsterdam: Default Auxiliary Engine Loads

Data on the size of the MSC Amsterdam's auxiliary engines are not publicly available, but the 2021 emission inventory for the Port of Los Angeles[8] lists default auxiliary engine loads for a 16,000 TEU container ship (Table 3), which we may reasonably expect to be similar to the MSC Amsterdam. The MSC Amsterdam was commissioned to use the Port's shore power system at OICT on May 22,[9] indicating that the vessel plugged into the Port's shore power system upon arrival. Therefore we assume that auxiliary engine berth hotel loads and corresponding vessel emissions were zero, with any emissions associated with the shore power system and electricity grid.

The data for the MSC Amsterdam are one way, as the AIS data did not show the vessel leaving the Bay. Furthermore, the vessel was able to pull directly into the berth upon arrival, with very limited maneuvering, and no time at the anchorage. Therefore these emissions estimates represent a conservative lower bound for inbound vessel emissions in the Bay.

Were a vessel like the MSC Amsterdam to visit the anchorage, based on the default auxiliary load assumptions described, auxiliary engines would consume around 0.24 MT of MDO/MGO fuel per hour (Table 4), emitting around 0.75 MT $CO_2$ per hour, and 0.018 MT NOx per hour. Note that for the Corps' design vessel, similar to the MSC Anna, those emissions would increase by around 18% based on the default auxiliary engine loads.

### MSC Amsterdam: Fuel Consumption and Emissions

Based on AIS speeds observed, we estimate (Table 7) that the MSC Amsterdam's main and auxiliary engines consumed as much as 1.36 MT of fuel in the San Francisco Bay,[10] most likely 0.1% S MGO/MDO, in compliance with the North American ECA and CARB regulations. Carbon dioxide emissions associated with fuel consumption at around 4.37 MT $CO_2$ along with 0.12 MT $NO_x$.[11] Main + auxiliary engine emissions are shown in Table 7 below.

Table 7: Main plus auxiliary engine emissions for the MSC Amsterdam calling at the Port of Oakland

| Species | **Berth** | **Cruise** | **Maneuvering** | **Total** |
|---|---|---|---|---|
| Total Fuel Consumption (MT) | - | 1.24 | 0.12 | 1.36 |
| $CO_2$ Emissions (MT) | - | 3.98 | 0.39 | 4.37 |
| $NO_x$ Emissions (MT) | - | 0.12 | 0.01 | 0.12 |
| $PM_{10}$ Emissions (MT) | - | 0.01 | 0.00 | 0.01 |

8

https://kentico.portoflosangeles.org/getmedia/f26839cd-54cd-4da9-92b7-a34094ee75a8/2021_Air_Emissions_Invento ry

[9] See "List of Approved Shore Power Vessels" at the Port of Oakland at https://www.oaklandseaport.com/development-programs/shore-power.

[10] Per the 2020 Port of Oakland Emission Inventory, the western boundary of emissions analysis is the Golden Gate Bridge.

[11] MSC Amsterdam and MSC Anna both have keel laid dates in 2015, and are therefore Tier II vessels, with a slow speed engine $NO_x$ emission rate of 14.4 $g.kWh^{-1}$, adjusted for low load operations.

How does the fuel and technology used by ultra-large vessels compare to the fuel and technology used by vessels that presently visit the Port of Oakland?

Ultra-large vessels are generally newer builds, post-2016, and are more likely to have Tier III engines on board. As noted in the EA, Gen IV vessels are generally scheduled on European routes for a number of years due to economies of scale, high profitability on those routes, and a tightening regulatory environment in Europe before being redeployed to the Pacific. As the fleet turns over, Gen IV vessels will call at California Ports in greater numbers. While it is likely that newer vessels go to European routes before Pacific routes, the benefits of IMO carbon intensity regulations[12] may be felt more slowly among older vessels, but they are likely to have an impact as the regulations are applied for each individual vessel. Larger vessels that do call on California usually call at San Pedro Bay ports first, arriving to Oakland lighter due to draft constraints (Oakland is dredged to 50 ft, Gen IV drafts are usually around 52.5 ft, and the Port of Los Angeles' main channel is maintained at 53 ft). Scrubbers are not allowed within California waters,[13] and all engines must be fully operating on 0.1% S fuels within 24 nautical miles of the shoreline.

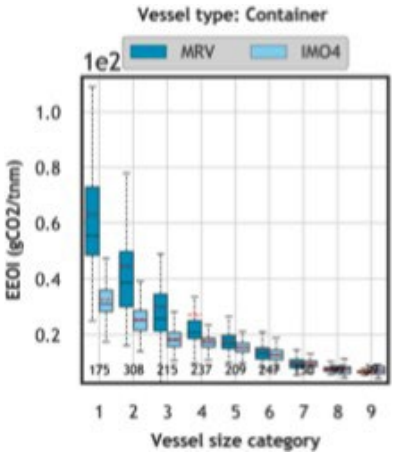


Figure 4: Carbon intensity of container ships by size bin.[14]

**Earth Justice-50**

Larger vessels are more fuel efficient per nautical mile sailed (Figure 4), and correspondingly the carbon intensity of larger container vessels per ton-nautical mile is lower.[15] Per the Fourth IMO Greenhouse Gas Study (GHG4), Table 60, the carbon intensity of IMO Category 9 vessels (20,000+ TEUs), is 7.7 $gCO_2$/t-nm, compared to 8.0 $gCO_2$/t-nm for Category 8 container vessels (14,500 - 19,999 TEUs). Data from the Port of Oakland's 2020 Emission Inventory, recreated in Table 8 below, show that 50.6% of calls at the Port are from

[12] https://www.imo.org/en/MediaCentre/HotTopics/Pages/EEXI-CII-FAQ.aspx
[13] https://ww2.arb.ca.gov/our-work/programs/ocean-going-vessel-fuel-regulation
[14] Source: IMO GHG4, Figure 108.
[15] See, for example, Figure 73 and Figure 108 in the Fourth IMO Greenhouse Gas Study. https://www.imo.org/en/ourwork/Environment/Pages/Fourth-IMO-Greenhouse-Gas-Study-2020.aspx

vessels with a capacity of less than 8,000 TEU, and the modal size bin is 8,000 - 10,000 TEUs, which account for 30.2% of voyages.[16]

Table 8: Container ship calls at the Port of Oakland in 2020 by TEU capacity.

| Capacity (TEU) | n Voyages |
|---|---|
| <1,000 | 0 |
| - <2,000 | 27 |
| - <3,000 | 137 |
| - <4,000 | 74 |
| - <5,000 | 216 |
| - <6,000 | 21 |
| - <7,000 | 111 |
| - <8,000 | 37 |
| - <10,000 | 372 |
| - <12,000 | 119 |
| - <14,000 | 56 |
| - <16,000 | 56 |
| 16,000+ | 5 |
| **All** | **1,231** |

GHG4 reports a carbon intensity of 13.4 $gCO_2$/t-nm for vessels in this size category, indicating that Gen IV vessels are around 42.5% more carbon (and fuel) efficient per unit cargo moved than the current most common container vessel size group at the Port of Oakland (8,000 - 10,000 TEU).

While Gen IV vessels are likely to have Tier III $NO_x$ controls on board, the effectiveness of those controls below 25% engine load is uncertain, with most indications that selective catalytic reduction systems are not operated below 25% engine load (maximum continuous rating), and exhaust gas recirculation systems aren't operated below around 10% engine load.[17] This means that while vessels may be equipped with Tier III $NO_x$ controls, $NO_x$ is unlikely to be controlled to Tier III levels due to low engine loads and associated operational constraints. Accordingly, while the Tier III $NO_x$ emissions rate for slow speed engines is 3.4 $gNO_x$/kWh, vessels may emit at rates closer to the Tier II limit of 14.4 $gNO_x$/kWh inside the San Francisco Bay on the approach to the Port of Oakland. Furthermore, there is literature that indicates that the performance of Tier III control technologies can degrade over time through sulfur poisoning, thermal decomposition, and carbon deposition.[18] Given that container vessels slow down significantly passing under the Golden Gate Bridge, engine loads are often well below 25%, and below 10% east of the Bay Bridge, NOx emissions from Gen IV vessels equipped with Tier III NOx controls operating at low loads in the near shore environment are likely to be more closely aligned with Tier II emission rates, which are more than 4x greater than Tier III emission rates.

**Earth Justice-51**

Low load adjustment factors presented in the EPA Port Emissions Inventory Guidance[19] show that NOx, PM, and $CO_2$ emission factors increase at loads below 20%. At 15% main engine load, NOx emission factors increase by 1.06x, and by 1.22x at 10%. At 2% main engine load, the lower limit of the tables provided, NOx emission factors increase by 4.63x.

[16] See Table 2-1. https://www.portofoakland.com/files/PDF/Port%20Oakland%202020%20Emissions%20Inventory%20Final%20Rep ort.pdf

[17] MEPC 80/5/1 Assessment of Low-Load Performance of IMO NOX Tier III Technologies.

[18] https://doi.org/10.1039/C1CY00007A and https://doi.org/10.1016/j.applthermaleng.2014.02.021.

[19] https://www.epa.gov/state-and-local-transportation/port-emissions-inventory-guidance

What are the operational differences between ultra-large vessels and vessels that presently visit the Port of Oakland?

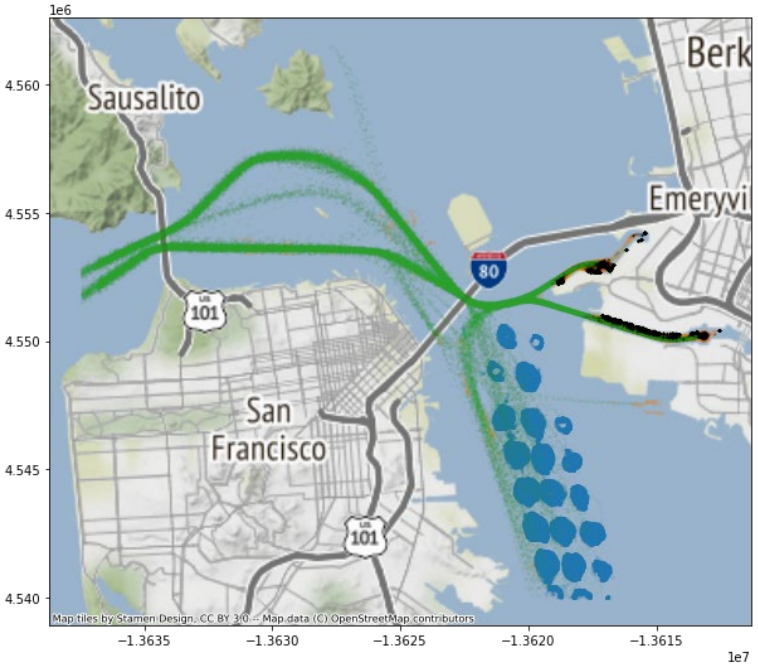


Figure 5: AIS positions of vessels calling at the Port of Oakland in 2015 shown in transit (green), at anchor (blue), maneuvering (orange) and at berth (black).

**Do AIS data show that ultra-large vessels are associated with longer periods of time idling, waiting at berth, or waiting for their next call assignments?**

We analyzed 848 voyages identified from the AIS. After removing outliers for time at anchor and time at berth, associated with non-standard operations or mis-characterisation by our algorithms, we were left with 799 voyages, with 282 unique vessels (Figure 5).

The data do not indicate differences in cruise or maneuvering times across voyages, comparing vessels less than 300m long with vessels longer than 300m, shown in Table 9.[20] On average, vessels spend 3.2 - 3.6 hours cruising with the AIS sample, and 0.4 - 0.5 hours maneuvering. T-tests testing for significant differences in the population means found no significant difference in hours spent in cruise or maneuvering mode ($p = 0.22$ and $p = 0.88$, respectively). Mean time spent at anchorage, when sent to the anchorage, is significantly longer for the larger vessel group (means = 153.5 and 103.8 hours, $p = 0.002$). Additionally, as expected, vessels in the larger group spend an average of 90.3 hours at berth, significantly more than the smaller vessels (mean = 70.0, $p < 0.001$).

Table 9: Mean time at anchor, berth, cruising, and maneuvering by vessel length at the Port of Oakland in 2022

[20] This cutoff corresponds to a deadweight of around 90,000 DWT, which breaks the data into IMO container ship size categories 1-5 (< 300m), and 6-9 (<= 300m).

| | Vessel Length | |
|---|---|---|
| Time at… (h) | < 300m | >= 300m |
| Anchor | 103.8 | 153.5 |
| Berth | 70.0 | 90.3 |
| Cruise | 3.2 | 3.6 |
| Maneuvering | 0.5 | 0.4 |

We also compared the likelihood of being sent to the anchorage for vessels of different sizes. For the largest vessels, those longer than 350m, we identified 21 voyages, of which 9 (42.9%) visited the anchorage. For vessels longer than 300m, we identified 263 voyages, of which 29.3% visited the anchorage. The percent of voyages for vessels less than 300m that visited the anchorage was 16.4%. There were no significant differences in the time spent at anchorage among the three groups.

**What differences may be expected in terms of greater use of cargo handling equipment to move larger amounts of cargo at once?**

The Corps' stated goal of the proposed project is to reduce congestion and risk, by enabling faster and safer turning of larger vessels in the turning basins. The turning basin expansion does not, per se, enable larger Gen IV vessels to call at the Port. Gen IV vessels have already called at the Port, albeit in low numbers. Channel depth, berth depth, crane reach, crane height, and yard space and handling are primary constraining factors that are unchanged with this project. Terminal expansions are planned or already underway, independent of the turning basin expansion project, and this project will not add additional berths, cranes, or yard space. **Earth Justice-52**

It is likely that the Port of Oakland will see increasingly larger vessels, discharging larger container volumes. Gen IV vessels are proliferating through the fleet, offering greater economies of scale and, importantly, lower emissions per unit of cargo transported. Container vessels typically visit Oakland after calling, and offloading, at the San Pedro Bay Ports. This proposed project aims to make calls from larger container ships safer and more efficient, but the routing of those vessels is also a function of macroeconomic factors outside of the proposed turning basin expansion. **Earth Justice-53**

Data from the International Transport Forum indicate that larger vessels may actually reduce the rate at which cranes load and unload cargo, as the distances traversed are larger and therefore container move cycles are longer.[21] The Corps' assumption is that total calls will remain flat, meaning projected container throughput increases will be driven by larger vessels, unloading larger cargoes, but over a proportionally longer period of time. It is reasonable to assume that, were throughput to double as a result of doubling TEUs/call, a single ship might sit at berth for **Earth Justice-54**

less time than two smaller vessels unloading the equivalent total cargo, as waiting, maneuvering, and berthing time would need to be factored in for the two smaller vessels.

**Earth Justice-55**

This scenario may introduce a pulse of containers when the vessel arrives, which may strain yard and cargo handling capabilities if not properly prepared, as the cranes would potentially be in more frequent loading/unloading operation rather than sitting idle for the period of time while one vessel departs and the next maneuvers into the berth. Additional yard operations in terms of container stacking and moves may also

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[21] https://www.itf-oecd.org/sites/default/files/docs/15cspa_mega-ships.pdf

be required. Under this scenario it is possible that cargo handling needs would increase, within the constraints of the yard size, available cargo handling capacity, and gate opening times.

Arrivals of Gen IV vessels in significant numbers and their associated cargoes are also likely to require changes in yard and labor practices. Yards may need to increase stack heights to accommodate greater volumes and labor demand may be more episodic, correlated with the arrival of large ships that introduce more demand peaks.

**What impacts may there be to truck and rail movements in terms of congestion of equipment, truck, and rail due to increased, simultaneous operation?**

Around 10% of imports at the Port of Oakland are moved by rail, and rail facilities at the port are near-dock not on-dock, requiring additional transport across terminal aprons to the rail yards. In contrast, around 60% of imports at the Port of Los Angeles move via rail.[22] Container rail dwell times, the time between the container being unloaded from the vessel and loaded onto a train, were reportedly 9-12 days in Oakland in June 2022, up from 3-4 days previously. The delay is reportedly due to a lack of capacity to move containers to off-dock rail facilities.

Trucks arriving at the Port of Oakland primarily arrive via one of three freeway interchanges: Maritime/West Grand Street, Seventh Street, and Adeline/Market Street. Truck movements are calculated using a few metrics, including gate counts in the Port's eModal system, truck count surveys, and inferred truck counts based on container movements. Data from 2020, reported in the Port's 2020 Emission Inventory, show 1,391,171 total truck visits to marine terminals, and an additional 54,855 truck visits to rail terminals.

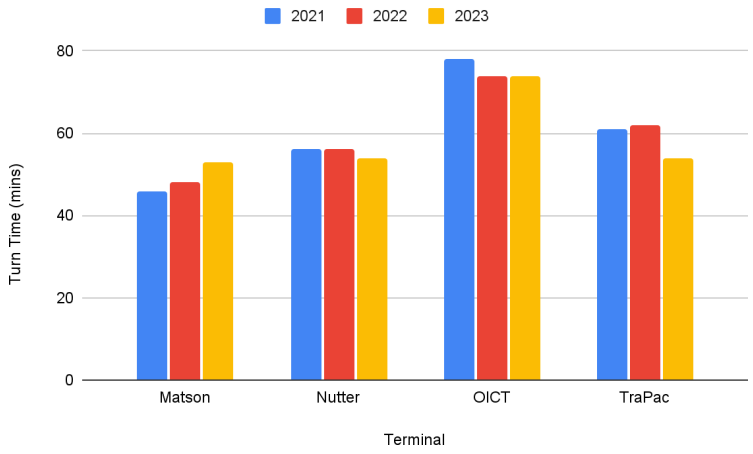


Figure 6: Mean turn times from 2021 - 2023 for trucks calling at Port of Oakland container terminals.

The 2020 Emission Inventory reports that, on average, trucks idle at the gate for an average of 8 minutes, and idle in the terminal for 20 minutes. Notably, these data are from surveys performed

in 2005 and 2012, and may not be fully reflective of the current situation. Total turn times, that is the time from when a truck enters the terminal gate, loads and/or unloads cargo, and leaves the terminal, are shown in Figure 6.[23] These data

[22] https://www.cnbc.com/2022/07/08/railroad-bottleneck-at-west-coast-ports-reaches-inflection-point.html
[23] Data compiled from https://portofoakland.emodal.com/HistoricalTruckTurnTime

show that mean turn times at the Nutter Terminal decreased from 56 minutes in 2021 and 2022 to 54 minutes in 2023. Turn times are longer at the OICT, down from an average of 78 minutes in 2021 to 74 minutes in 2022 and 2023.

**Earth Justice-56**

With larger vessels and associated larger TEU discharges, we may expect to see pulses of containers needing to move through the port, requiring twice as many, or more, truck trips for a single vessel call. While the rate at which containers are moved off the vessel may be lower due to the larger size of the vessel and longer container lift trips, the total volume of containers will be greater, requiring efficient yard handling practices, including stacking higher, additional labor, and automation.

This has the potential to lead to congestion effects if terminals do not efficiently plan for and stage cargo to be transported on and off the vessel. These pulses in TEUs may require longer gate hours and additional truck operators to efficiently move the cargo. From a rail perspective, container dwell times are already extended due to a lack of capacity to move containers to off-dock rail facilities. Additional pulses in cargo associated with larger container ships would likely strain those dwell times further.

**How might truck trips change due to visitation by ultra-large container vessels?**

Ultra-large container vessels may introduce a pulse of containers when the vessel arrives, which may strain yard and cargo handling capabilities with the potential for cascade effects through to drayage. At present, the Port reports that large vessels load and unload as many as 2,500 containers when visiting the Port,[24] with the average TEU per call up from around 1,672 in 2015[25] to around 2,000 in 2020.[26] The Corps assumption is that the number of calls will be unchanged in future scenarios, and with throughput set to roughly double, this means that TEUs per call will also, on average, double.

**Earth Justice-57**

As noted in the prior sections, larger vessels, and associated larger TEU discharges, may lead to pulses of larger volumes of containers needing to move through the port at a given time, requiring twice as many, or more, truck trips for a single vessel call. These pulses in TEUs may require longer gate hours, additional truck operators, and additional chassis to efficiently move the cargo. These pulses may also induce short-term labor effects, including shortages, overtime, and union-related issues.

For reference, Table 5-6 in the Ports 2020 emission inventory, recreated in Table 10, shows NOx emission rates of 41.07 gNOx/hr while idling, and 10.55 gNOx/mile traveling at 10mph or below. NOx emission rates fall further to 4.35 gNOx/mile at 35mph.

Table 10: NOx and $PM_{10}$ average emission factors by speed for drayage trucks in the 2020 Port of Oakland Emission Inventory.

| Speed (mph) | NOx | $PM_{10}$ Total | Unit |
|---|---|---|---|
| 0 | 41.07 | 0.014 | g/hr |
| 10 | 10.55 | 0.217 | g/mile |

[24] https://www.portofoakland.com/seaport/port-oakland-steps-ships-carry-bigger-loads-ever/

[25] https://www.bts.gov/archive/publications/port_performance_freight_statistics_annual_report/2016/ch3

[26] https://www.portofoakland.com/files/PDF/Port%20Oakland%202020%20Emissions%20Inventory%20Final%20Rep ort.pdf

| | | | |
|---|---|---|---|
| 35 | 4.35 | 0.174 | g/mile |

We have provided an example calculation for a truck dropping off/picking up a container at OICT, entering the 7th Street Gate, which corresponds to the shortest distance to Berths 55-56. Assuming a one-way distance of 1.44 miles from gate to berth, travel speeds of 13.5 mph, gate delays of 8 minutes, and a total turn time of 74 minutes, we might expect a single truck round trip to generate around 75 grams of NOx, of which 69% is attributable to idling and 31% to emissions while moving. This same truck trip could also generate 0.62 grams of $PM_{10}$ (0.57g $PM_{2.5}$), 97% of that while driving. For terminals where distances are longer emissions would be greater, though NOx emissions increase at low speed, and are greatest while idling.

Table 10: 2015 TEU throughput, container calls, and TEUs per calls at the Port of Oakland and the three largest container ports.

| Port | TEUs | Container Calls | TEU/ call |
|---|---|---|---|
| POAK | 2,340,000* | 1,361 | 1,672 |
| POLB | 7,192,000 | 983 | 7,320 |
| POLA | 8,160,000 | 1,086 | 7,494 |
| NYNJ | 6,732,000 | 2,270 | 2,808 |

In practice, there is likely to be an asymmetric effect, where the mean TEUs per call is skewed by calls from ultra-large container ships that may unload more than 4,000 TEUs per call. Table 11 shows that although the Port of Oakland receives more container calls than the Ports of Los Angeles and Long Beach, the TEUs per call at Oakland are far lower. In future, ultra-large container ships may reasonably be expected to load/unload 4,000+ TEUs per call. A typical tractor trailer and chassis can move a forty-foot container, or 2 TEUs. This corresponds to approximately one additional truck trip per additional 2 TEUs of throughput, as roughly 90% of TEU throughput at the port is moved via truck.

**EDWARD W. CARR, PH.D.**
**VP Research and Operations**
**Energy and Environmental Research Associates, LLC.**

## *EDUCATION*

Ph.D. Marine Studies, University of Delaware, Newark, DE. 2017
M.M.P. Master of Marine Policy, University of Delaware, Newark, DE. 2014
B.A. Biology, Bowdoin College, Brunswick, ME. 2008

## *EXPERTISE AND EXPERIENCE*

Dr. Carr has over a decade years of experience working on projects related to air quality, climate, emissions, energy and economic analysis in the mobile, non-road, and biogenic sectors. Dr. Carr has worked on air quality and emissions inventory projects for federal, state, NGO, and industry clients, including the U.S. EPA (Office of Transportation and Air Quality), U.S. FHWA, U.S. DOT Maritime Administration, and South Coast Air Quality Management District. Dr. Carr brings expertise in policy analysis, geospatial analysis, and economic and data analysis. He has published work on the economics and health benefits of emissions abatement technology in ships, analyzing the use of economic instruments to incentivize alternative fuels in the shipping industry, the costs and benefits of alternative fuels in medium and heavy-duty transportation, and the macroeconomic factors affecting heavy-duty truck purchasing decisions. Dr. Carr's works also includes macro- and micro-economic modeling of large-scale electrification and transportation projects. Dr. Carr earned his Master of Marine Policy, and Ph.D. in Marine Studies from the University of Delaware, and
A.B. In Biology from Bowdoin College.

## *PROJECT SUMMARIES*

- **New York State Energy Research and Development Authority (NYSERDA):** Supported development of an assessment of the New York State methane emissions inventory and developed an updated methodology to geospatially estimate methane emissions from oil and natural gas infrastructure.
- **Environmental Protection Agency (EPA)**: Development of Category 3 marine vessel emissions model methodology; Shore power technology assessment and development of energy use and emissions calculator (2017 and 2022 reports); Port Everglades emissions inventory vessel projection; Analysis of Heavy-Duty Vehicle Sales Impacts due to New Regulation; EPA Subpart W.
- **REMPEC (2018-2022):** Drafted technical and feasibility study for the proposed Med SOx ECA, road map for the possible designation of the Med SOx ECA, and initial Draft Submission to the International Maritime Organization (IMO) for the designation of the Med SOx ECA. Technical analysis, health modeling, fuel availability study, economic impacts analysis. Country-level readiness and air quality regulations.
- **California Electric Transportation Coalition (CalETC) (2017, 2020):** Macroeconomic Input-Output analyses of impacts of transportation electrification in regions throughout the United States. Bottom-up survey estimation of workforce needs to meet battery electric vehicle infrastructure demand.
- **California Hydrogen Fuel Cell Partnership (2022):** Hydrogen vehicle report, including industry overview, analysis of existing fueling infrastructure, and bottom-up survey estimation of workforce needs to meet hydrogen vehicle infrastructure demand.

- **Ocean Conservancy (2022):** Reducing Greenhouse Gases in the Maritime Sector: Approaches for Decarbonizing the U.S. Fleet**.** Decarbonization analysis and alternative maritime fuels discussion. Analysis of AIS-derived fleet movements for U.S. flag and federally owned and operated vessels and economic costs.
- **Macroeconomic Input-Output Analysis:** Macroeconomic Input-Output analysis of the economic impacts of constructing a new transmission line and associated substations. Projects include PSEG Long

  Island Expansion (2018), Nassau County, New York, and New York Energy Solution Transmission Project.
- **IMO (2022):** Co-authored Just In Time Arrival Emissions Reduction Potential in Global Container Shipping with MarineTraffic. Analysis of global container ship AIS positions to determine waiting times and optimal speeds to reduce voyage GHG emissions.

*PAPERS AND REPORTS*

EPA (2022) Shore Power Technology Assessment 2022 Update. EPA-420-R-22-037. EERA and ERG as co- lead authors. https://www.epa.gov/ports-initiative/shore-power-technology-assessment-us-ports

REMPEC (2022) Proposal to Designate the Mediterranean Sea, as a Whole, as an Emission Control Area for Sulphur Oxides. MEPC 78/11. https://wedocs.unep.org/bitstream/handle/20.500.11822/37136/21ig25_27_2514_eng.pdf. EERA led writing of the proposal documents, as well as the road map and technical and feasibility study.

**Edward W Carr,** James J Winebrake, Samuel G Winebrake, Erin H. Green. (2022). Reducing Greenhouse Gases in the Maritime Sector: Approaches for Decarbonizing the U.S. Fleet. Prepared for Ocean Conservancy. https://oceanconservancy.org/wp-content/uploads/2022/10/Decarbonising-the-US-Flagged- Fleet-Working-FINAL-23Aug2022_layout.pdf

IMO-Norway GreenVoyage2050 Low Carbon GIA (2022) Just In Time Arrival Emissions Reduction Potential in Global Container Shipping. EERA and MarineTraffic as co-lead authors. https://greenvoyage2050.imo.org/wp-content/uploads/2022/06/JIT-Container-Study.pdf

Christopher Porter, Daniel Beagan, John Koupal, Roger Wayson, Elizabeth Welch, **Edward W. Carr**. (2022) Addressing Truck Emissions and Noise at Truck Freight Bottlenecks. Report for Federal Highway Administration. Contract No. DTFH6117D00008L, order no. 693JJ320F000295. https://www.fhwa.dot.gov/environment/air_quality/research/addressing_truck_bottlenecks/

EPA (2021) Analysis of Heavy Duty Vehicle Sales Due to New Regulation. EPA-420-R-21-013. https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P101246N.txt. EERA led all aspects of data analysis and report writing.

**Edward W Carr**, James J Winebrake, and Samuel G Winebrake. (2021). "Workforce Projections to Support Battery Electric Vehicle Charging Infrastructure Installation." Prepared for Electric Transportation Community Development Corporation. https://etcommunity.org/assets/files/Workforce-ProjectionstoSupportBatteryElectricVehicleChargingInfrastructureInstallation.pdf

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E Schenk, **E Carr**, JJ Corbett, JJ Winebrake. (2020). Macroeconomic and Environmental Impacts of Port Electrification: Four Port Case Studies. https://www.maritime.dot.gov/sites/marad.dot.gov/files/2020-09/Port%20Electrification%20MARAD%20Final%20Report.pdf

Shirazi, Y. A., **Carr, E. W.,** Parsons, G. R., Hoagland, P., Ralston, D. K., & Chen, J. (2019). Increased operational costs of electricity generation in the Delaware River and Estuary from salinity increases due to sea-level rise and a deepened channel. *Journal of environmental management*, 244, 228-234.

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**Carr, E.W.**, Shirazi, Y., Parsons, G.R., Hoagland, P. and Sommerfield, C.K., 2018. Modeling the economic value of blue carbon in Delaware estuary wetlands: historic estimates and future projections. Journal of environmental management, 206, pp.40-50.

Winebrake, J. J., Green, E. H., & **Carr, E. W.** (2018). An Assessment of Macroeconomic Impacts of Medium-And Heavy-Duty Electric Transportation Technologies in the United States. https://caletc.com/wp-content/uploads/2018/05/EERA-MHDV-Macroeconomic-Impacts-of- Electrification.pdf

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Shirazi, Y.; **Carr, E. W.**; Knapp, L. (2015). "A Cost-Benefit Analysis of Alternatively Fueled Buses with Special Considerations for V2G Technology." *JEPO Energy Policy* 87: 591–603.

EXHIBIT C

Marie Logan

**From:** Oakland Harbor Turning Basins Study <OaklandHarborTurningBasinsStudy@usace.army.mil>
**Sent:** Monday, May 22, 2023 5:57 PM
**To:** Katrina Tomas; Oakland Harbor Turning Basins Study
**Cc:** Marie Logan; Michelle Ghafar; margaret.woeip@gmail.com; bbeveridge@woeip.org; Jolliffe, Eric F CIV USARMY CESPN (USA)
**Subject:** RE: Comment Period on Oakland Harbor Turning Basins

**External Sender**

Dear Ms. Tomas,

Thank you for your email. The U.S. Army Corps of Engineers (USACE) is willing to meet with Earth Justice and the West Oakland Environmental Indicators Project. Please let us know if there is day and time in the coming weeks that you are available.

In recognition of the multiple requests for extension of the public comment period for the Oakland Harbor Turning Basins Integrated Feasibility Report and Environmental Assessment (IFR/EA), USACE has decided to extend the comment period by five additional days, until June 16, 2023. Please recognize that we are unable to provide the requested extension of 60 days.

This is a rerelease of the original December 2021 IFR/EA, for which a 45-day comment period plus 14 day extension was provided, and we received comments from your organization. In recognition of the public interest in this project, USACE opted to initially provide another 45-day comment period of the rereleased report instead of the standard 30 days. USACE is now allowing for a total of 49 days to comment on this rereleased document.

Further, not all sections of the document have been revised. To facilitate public review of the draft report, an outline of changes that have been made since the initial draft report was released, has been provided on page 6 of the Executive Summary. In this rerelease, Appendices A10-a, A10-b, and A10-c are dedicated to the comments received on the previous Draft Report. The appendices provide detailed responses and where in the document they are addressed.

In response to the emailed requests to host another public meeting during the comment period, a second virtual meeting is being scheduled for Wednesday, June 7, 2023 at 6:00 pm.

Kind regards,
The Oakland Harbor Turning Basins Study Project Delivery Team

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**From:** Katrina Tomas <ktomas@earthjustice.org>
**Sent:** Monday, May 22, 2023 4:54 PM
**To:** Oakland Harbor Turning Basins Study <OaklandHarborTurningBasinsStudy@usace.army.mil> **Cc:** Marie Logan <mlogan@earthjustice.org>; Michelle Ghafar <mghafar@earthjustice.org>; margaret.woeip@gmail.com; bbeveridge@woeip.org
**Subject:** [URL Verdict: Neutral][Non-DoD Source] RE: Comment Period on Oakland Harbor Turning Basins

Hello Mr. Jolliffe,

This is my fourth email requesting an extension of the comment period for the Oakland Harbor Turning Basins Widening Navigation Study. We have not received a response from you or anyone else from the Army Corps to our prior emails sent on May 2, May 8, and May 17. We remain disappointed that the Corps has not responded to our request for an extension of the comment period.

We also saw that the Army Corps' webpage for the Oakland Harbor Turning Basins Widening Navigation Study has changed the original June 12 comment deadline to June 16. We want to confirm that the Army Corps has extended the deadline by four additional days. While we appreciate the extension, we want to urge the Corps to consider further extending the comment period to ensure that community members can engage with the over 1,200 pages of materials prepared for this project.

Finally, we would like to reiterate our request for the Corps to hold another public hearing. As I explained in my previous email, the Corps' technical issues at the May 10 meeting precluded adequate public participation.

Thank

you,

Katrina

**Katrina A.**
**Tomas**
*she/her/hers*
Associate
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California Regional
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T: 415.217.2116
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EARTHJUSTICE



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**From:** Katrina Tomas
**Sent:** Wednesday, May 17, 2023 2:53 PM
**To:** OaklandHarborTurningBasinsStudy@usace.army.mil

**Cc:** Marie Logan <mlogan@earthjustice.org>; Michelle Ghafar <mghafar@earthjustice.org>; margaret.woeip@gmail.com; bbeveridge@woeip.org
**Subject:** RE: Comment Period on Oakland Harbor Turning

Basins Dear Mr. Jolliffe,

We have not heard from you in response to our May 2 or May 8 emails. We are disappointed that the Corps has not responded to our request for an extension of the comment period, or the submissions by over 1,000 community members who emailed you to request the extension.

We also write to express disappointment about the technical issues that affected the Corps' virtual public hearing on May 10. Despite pre-registering using Eventbrite, our experience trying to access the meeting was that participants were required to create an account through Eventbrite and then rely for authentication on an existing email address simply to access a Zoom meeting. When the Corps ultimately did send out the Zoom link

about 15 minutes after the hour, the public presentation was already nearly concluded—and anyone who joined late due to the technical issues therefore had no information to respond or react to.

The Corps' technical issues at the May 10 meeting precluded adequate public participation. We therefore reiterate our request that the Corps hold another public hearing to adequately invite comment from members of the community who would be affected by the expansion of the Turning Basins.

Please let us know whether you plan to extend the comment period or hold another public

hearing. Thank you,

Katrina

**Katrina A.**
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---

**From:** Katrina Tomas
**Sent:** Monday, May 8, 2023 10:02 AM
**To:** OaklandHarborTurningBasinsStudy@usace.army.mil
**Cc:** Marie Logan <mlogan@earthjustice.org>; Michelle Ghafar <mghafar@earthjustice.org>; margaret.woeip@gmail.com; bbeveridge@woeip.org
**Subject:** RE: Comment Period on Oakland Harbor Turning

Basins Hello Mr. Jolliffe,

I wanted to follow up on my previous email requesting a meeting with the Army Corps to discuss the comment period for the Oakland Harbor Turning Basins Widening Navigation Study. In my previous email I included a formal written request to extend the comment deadline for the Revised Draft

Integrated Feasibility Report and Environmental Assessment (Revised EA) by 60 days. Earthjustice and West Oakland Environmental Indicators Project would appreciate a timely response to this request.

Thank

you,

Katrina

**Katrina A.**
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**From:** Katrina Tomas
**Sent:** Tuesday, May 2, 2023 10:56 AM
**To:** OaklandHarborTurningBasinsStudy@usace.army.mil
**Cc:** Marie Logan <mlogan@earthjustice.org>; Michelle Ghafar <mghafar@earthjustice.org>; margaret.woeip@gmail.com; bbeveridge@woeip.org
**Subject:** Comment Period on Oakland Harbor Turning

Basins Hello Mr. Jolliffe,

This is Katrina Tomas from Earthjustice and the Sustainable Ports Collaborative writing in partnership with West Oakland Environmental Indicators Project (WOEIP).

I'm writing to request a meeting with the Army Corps to discuss the comment period for the Oakland Harbor Turning Basins Widening Navigation Study. WOEIP and Earthjustice have deep concerns that 45 days is insufficient for thoughtful and informed commenting by members of the public, and we are hereby submitting a written request to extend the comment deadline for the Revised Draft Integrated Feasibility Report and Environmental Assessment (Revised EA) by 60 days. In this meeting, we would also like to discuss our concerns about the Army Corps' failure to adequately consult with the West Oakland community on development of the EA.

Please let me know what times you are available this week or next week for a meeting with

us. Thank you,

Katrina Tomas
Marie Logan
Michelle
Ghafar
*Earthjustice*

Ms. Margaret Gordon
Brian Beveridge
*West Oakland Environmental Indicators Project*

**Katrina A.**
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## Responses to Comments

### Earth Justice

| Comment Number | Response | Location in IFR |
|---|---|---|
| Earth Justice - 1 | At this time, USACE has made an initial determination that, with implementation of the recommended avoidance and minimization measures, the impacts of the Project would be less than significant and thus an EA is appropriate in this situation. If new circumstances require USACE to pursue additional environmental analysis, the Agency will do so pursuant to NEPA. The synchronization of release of the NEPA and CEQA documents is not feasible as it would prevent USACE from being able to meet deadlines for authorization. The Draft EIR has been released and reviewed by USACE. Both documents recommend and discuss the same alternatives and propose to construct the same Project. There are no elements in the Port's Proposed Project that are not included in the IFR/EA. | 1.8: National Environmental Policy Act Coordination |
| Earth Justice - 2 | See response to Earth Justice - 1. | NA |
| Earth Justice - 3 | As demonstrated in the IFR/EA, the Recommended Plan will not significantly adversely impact physical and biological environmental resources; cultural resources; public health and safety; or the quality of the human environment. Each resource area provides an analysis and determination as to why impacts are less than significant. See Chapter 6 of the IFR/EA. Based on the thorough analyses done in preparation of this report, an EA remains appropriate at this time. See GC-3. | Executive Summary, Chapter 6: NEPA Environmental Effects Analysis |
| Earth Justice - 4 | USACE has considered the potential for changes to container movement associated with the Project and determined that the Project would not be expected to cause reasonably foreseeable shifts in container movement timing, scope, or location. See GC-1. Earth Justice's own expert, Dr. Carr, wrote in Exhibit B, Oakland Harbor Turning Basins Widening: Peer review services for Evaluating Air Quality, Emissions, and Economic Analysis: Operations and Emissions (hereinafter "Carr Report"), "[t]his proposed project aims to make calls from larger container ships safer and more efficient, but routing of those vessels is also a function of macroeconomic factors outside of the proposed turning basin expansion." Page 12. The Carr Report points out that "[c]hannel depth, berth depth, crane reach, crane heigh, and yard space and handling are primary constraining factors that are unchanged with this project." In addition, the Carr Report agrees that "Gen IV vessels are proliferating through the fleet, | 6.14: Greenhouse Gases, Appendix A07: Avoidance and Minimization Measures |

| | | |
|---|---|---|
| | offering greater economies of scale and, importantly, lower emissions per unit of cargo transported." The air quality analysis is performed using the thresholds for criteria air pollutants within the air basin where the project is located, as per the State Implementation Plan and are not constrained to a one-mile radius of effects around the project area, in this way, dispersal of emissions within the air basin is assumed by the analysis. Additional GHG analysis has also been included in Final IFR/EA Section 6.14. See Appendix A07 for a list of all the emissions reduction strategies the Project intends to implement. The IFR/EA explains that container cargo volumes are independently forecasted to continue to grow in the future regardless of the Project, which is consistent with previous analyses and other nationwide deep draft feasibility studies unrelated to this study. The Project is not expected to induce cargo growth (shifts from other ports or new business) from the future without project baseline. However, the Project would allow the Port to accommodate cargo vessels more efficiently, thereby maintaining economic benefits to the region over time. This vessel efficiency results in environmental and economic benefits. | |
| Earth Justice - 5 | Commenter misinterprets USACE's use of the word "operational" in the quote. Wider turning basins will allow for the efficient operation of marine vessels in transit, but that is not a part of the Port's landside operations. USACE maintains, and its IFR/EA shows that this Project will not induce changes to landside infrastructure. As Commenter's own expert explains, "[t]erminal expansions are planned or already underway, independent of the turning basin expansion project, and this project will not add additional berths, cranes, or yard space." Carr Report 12. Further, Carr continues by saying that "[t]his proposed project aims to make calls from larger container ships safer and more efficient, but the routing of those vessels is also a function of macroeconomic factors outside of the proposed turning basin expansion." USACE has analyzed all reasonably foreseeable impacts of the Project. Induced growth and landside impacts being suggested in the comment are not reasonably foreseeable impacts of the Project. In response to those comments such as this one, USACE has included a more robust explanation for why those impacts are not expected. | 4.6 Alternative Plan Formulation and Screening, 5.7 Evaluation of Potential for Induced Growth, |
| Earth Justice - 6 | The Project is intended to accommodate the safe and efficient turning of a vessel longer than 1,139 feet in length and is not anticipated to change the overall projected container volumes serviced at the Port (see Section 5.7, Evaluation of Potential for Induced Growth). See GC-1. The Recommended Plan would not be expected to cause reasonably foreseeable shifts in container movement timing, scope, or location. Large vessels already call the Port and terminal operators manage the loading and unloading of both large and small vessels today. The existing conditions which include terminal operators adjusting to servicing varying container volumes temporally is | 5.7: Evaluation of Potential for Induced Growth, 6.1: Environmental Justice, 6.13: Air Quality |

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| | anticipated to continue to meet the projected future container vessel fleet mix. The Carr Report also supports USACE's finding that larger vessels contribute lower emissions per unit of cargo transported and that "a single ship might sit at berth for less time than two smaller vessels unloading the equivalent total cargo, as waiting, maneuvering, and berthing time would need to be factored in for the two smaller vessels." While USACE agrees that the overall time a ship may occupy the Port's space would be less, USACE clarifies that waiting and maneuvering, are not time spent at berth, when a vessel can be hooked up to shore power rather than utilizing diesel engines. Therefore, in terms of emissions, a ship at berth and a ship waiting or maneuvering are not the same. The Carr Report states that "Gen IV vessels are around 42.5% more carbon (and fuel) efficient per unit cargo moved than the current most common container vessel size group at the Port of Oakland." These facts point toward emissions reductions from this Project. See response to Earth Justice - 4. The air quality analysis is not constrained to the one-mile radius of effects around the project area; therefore, the Project and its potential effects were properly scoped. See response to Earth Justice - 5. The comment suggests that the IFR/EA limits the entirety of its environmental impact analyses to a one-mile radius of the turning basins, which is a mischaracterization. Section 3.1.3 explains that the one-mile radius accounts for the potential construction traffic impacts in the areas closest to the construction sites. Thorough analyses found in Chapter 6 of the Final IFR/EA explains why impacts to resource areas are less than significant. Removal of obstructions to efficient vessel movement reduce the risk of oil spills. Accordingly, the Project was properly scoped and analyzed in accordance with all project components. See response to Earth Justice - 4. | |
| Earth Justice - 7 | See response to Earth Justice – 4/5/6. Commenter's expert Carr agreed that this Project neither encouraged the market's move toward larger vessels nor enabled the Port's landside improvements. Section 5.7, Evaluation of Potential for Induced Growth, describes factors that impact cargo growth. The Port's most recent and successful efforts to obtain grant funding are unrelated to widening the turning basins and are expected to go through with or without this project. These efforts are projects (all of which will undergo their own project-specific environmental review) to modernize aging infrastructure and support the goal of a zero-emission future within the Seaport where marine terminal operations have and continue to occur. These efforts do not include adding berths or new purchases of land for servicing containers. Thus, even with implementation of the Port's recent grant supported efforts, there is no change to the number of vessels that can berth at one time nor is there an increase in the amount of land available for container handling operations. As presented in the Tioga Report, Exhibit 101, the Port has a limited | 5.7: Evaluation of Potential for Induced Growth |

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| | maximum capacity of roughly 5.6 million TEUs. This Project does not increase this capacity and USACE has appropriately considered induced growth in the context of the Port's other projects. | |
| Earth Justice - 8 | See Earth Justice 1-7. The Project to widen the turning basins and No Action alternative require the same number of transportation trips to deliver and pick up forecasted container volumes and no alteration to landside operations is anticipated. See also Tioga Report 114-125. Accordingly, the Project is properly scoped to include all project components requiring demolition, relocation, removal, rehandling, construction, and operational maintenance. | 5.7: Evaluation of Potential for Induced Growth, Tioga Report |
| Earth Justice - 9 | See the Draft EIR 3.3-10 for a comparison of vessel emissions with the Project and in the No Action Alternative that supports USACE's IFR/EA position. Vessel emission analysis expected from ULCVs are included for the greenhouse gas emissions inventory as these emissions are required to be evaluated under the Council on Environmental Quality Interim National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change. See response to Earth Justice – 4, 5, 6, 24 and GC-1. Furthermore, the Report supports the contention that ULCVs produce less emissions than those of the average Port cargo vessel per TEU. Therefore, increased ULCVs are expected to result in less air quality impacts. | 6.1.3: Inner Harbor and Outer Harbor Turning Basin Expansion, 6.14.7: Indirect Long-term Greenhouse Gas Emissions |
| Earth Justice - 10 | USACE does not disagree that vessels drop to lower speeds when entering the Bay. However, the information provided by the comment does not show how this variation in $NO_x$ emissions would result in increased impacts due to implementation of the Project. The Carr Report states that ULCVs would generate 42.5% less carbon emissions and while ULCVs Tier III $NO_x$ controls may not be working at maximum capability, Carr still believes they would resemble expected Tier II emission rates of 14.4 $gNO_x/kWh$. This would be a marked improvement over the Tier I vessels at 16.0 $gNO_x/kWh$, representing 55% of current Port vessel calls, that ULCVs would be replacing. See the Ramboll 2020 Seaport Air Emissions Inventory at 20. USACE and the Port do not control the make-up of the international fleet, nor directly regulate emissions on these vessels. Yet, the information provided by Earth Justice still supports the contention that the movement toward ULCVs with Tier III engines will improve air quality, even considering $NO_x$ technology limitations. | Ramboll 2020 Seaport Air Emissions Inventory |
| Earth Justice - 11 | Commenter's logic is flawed. See Earth Justice-10. The Tier I vessels, are the oldest vessels and the most likely to be replaced by ULCVs as the fleet modernizes. Even if ULCVs operate at Tier II levels, they would still be better than the Tier I vessels they are replacing. See Carr Report at 10. Even then, the correct comparison would be by container as a ULCVs can hold from two to three times that amount of cargo as these Tier I vessels. The evidence provided | 6.13: Air Quality, 6.14.7 Indirect Long-term Greenhouse Gas Emissions |

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| | by Commenter does not suggest increased $NO_x$ from the industry's decision to move to ULCVs only that all vessels operating at slower speeds may not achieve the $NO_x$ controls that are expected. Further, a major benefit of this Project is that vessels will be able to move in and out of the berths more efficiently, lowering at anchor emissions when a vessel is waiting to berth and allowing them to align appropriately for shore power. Therefore, this Project would address the very anchorage issues that this comment describes, reducing emissions, including reducing $PM_x$ impacts. ULCV emissions are regulated by the California Air Resources Board, even if they are not regulated by this Project. See response to Earth Justice – 4, 9, 10, and 24. Finally, see the Draft EIR 3.3.4, Table 3.3-10 that shows how we expect marine vessel emissions to be reduced in a future with project when compared to a future without it. Considering the Draft EIR, in addition to the existing Appendix A04c: Greenhouse Gas Analysis, these analyses support USACE's position that air quality improvements are expected from increased visitation of ULCVs over existing older vessels. | |
| Earth Justice - 12 | Globally and locally, larger container vessels are replacing smaller container vessels. This trend to larger container vessels, which offer greater economies of scale and lower emissions per unit of cargo transported, require fewer vessel trips to and from the Port to move the same amount of cargo (see section 2.4 Existing Fleet, Appendix C: Economics). With less vessels requiring a berth, schedule impacts that can require vessels to idle at anchor or at berth are reduced. Further, the Carr Report finds it reasonable to assume that single larger ship would berth for less time than two smaller vessels. See Earth Justice-6. This supports the contention that the Project would reduce the very anchoring that the comment is concerned with. A reduction of anchoring is further supported by the GHG analysis.<br><br>USACE agrees that larger vessels may spend more time at berth when a greater number of containers are serviced per call, because the primary constraining factors for working all size vessels (e.g., number and size of cranes and yard space) are unchanged by the Project. As a result of these constraints, there is theoretical maximum number of containers that can be serviced in a certain period, regardless of vessel size. Working with these constraints, marine terminal operators prepare and adjust operations to service higher volumes of containers in peak demand periods (e.g., holiday, back to school, Lunar New Year) or lower volumes in slow shipping demand periods. In consideration of the existing operational conditions which includes managing an appointment system for trucks to pick up and deliver containers (see section 2.2.1 of IFR/EA) and unchanged yard constraints by the Project, a significant "pulsing" effect related to more containers per call is not reasonably foreseeable. Overall, the | 2.2.1: Port Operations, 2.4: Existing Fleet, Appendix C: Economics |

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| | Project is not estimated to change the through-put of goods into the Port of Oakland, such that longer times for loading and unloading any one ship would not cause additional cargo operations in total. See GC-1. Emissions from moving cargo are not covered in the air quality analysis as they are not subject to compliance under the Clean Air Act for this Project. The on-land operations of the Port are not estimated to change due to ULCVs calling to the Port, and therefore additional emissions from pulses of activity are not projected due to this Project. See also Draft EIR Section 2.3.2. | |
| Earth Justice - 13 | The USACE used the Federal General Conformity Thresholds in its analysis, as that is what is required for compliance with the Clean Air Act - General Conformity rule. The EPA has confirmed in their letter that the air quality analysis is in compliance with the Clean Air Act General Conformity. The Port's Draft EIR details how the Project will comply with the BAAQMD thresholds being referenced. See Section 3.3.4 of the Draft EIR. Therefore, the Project is in compliance with both thresholds. | 6.13: Air Quality |
| Earth Justice - 14 | Emissions from maintenance dredging are considered in the Final Environmental Assessment/ Environmental Impact Report for the Maintenance Dredging of the Federal Navigation Channels in San Francisco Bay Fiscal Years 2015-2024 (USACE, 2015). The increase in volume caused by the widening still falls under the maximum annual volume analyzed in that report. See also the Draft EIR, which found that the resultant increases in air quality impacts from additional maintenance dredging would not negate the air quality gains expected from overall vessel emissions reductions from the project. See Table 3.3-11. | Final Environmental Assessment/ Environmental Impact Report for the Maintenance Dredging of the Federal Navigation Channels in San Francisco Bay Fiscal Years 2015-2024 |
| Earth Justice - 15 | Table 18 of the IFR/EA states that the San Francisco Bay Area Air Basin (SFBAAB) is designated as nonattainment (marginal) for the national 8-hour ozone and nonattainment (moderate) for the 24-hour $PM_{2.5}$ standard, which has precursors from $NO_X$, $SO_2$, VOC, and ammonia. The *de minimis* levels for both ozone precursors ($NO_X$ and VOC) and $PM_{2.5}$ is 100 tons per year. Emission estimates and comparisons to *de minimis* levels for Sub-alternative D-2 are shown in Table 51. Annual emissions within the SFBAAB for each pollutant by year for the action alternatives are provided in Sections 6.13.1. through 6.13.3. Tables 53, 54, and 55 of the IFR/EA show that $PM_{2.5}$, ozone, nor their precursors exceed the *de minimis* federal thresholds for any calendar year in either the San Francisco Bay Area or the San Joaquin Valley air basin. Therefore, the IFR/EA concludes that "As noted in Section 3.13, under the General Conformity Rule if a *de minimis* applicability analysis demonstrates that proposed Federal | 3.13: Air Quality, 6.13.1 – 6.13.3: Air Quality |

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| | actions do not exceed applicable *de minimis* thresholds, General Conformity does not apply and no additional analysis or documentation is required under the regulations to demonstrate that air emissions associated with the proposed actions do not contribute to air quality degradation or prevent achievement of state and Federal air quality goals. The results of this study's applicability analysis indicate that a conformity analysis is not required and therefore no general conformity determination was produced." See also, Draft EIR section 2.2 Air Quality for the Port's analysis. | |
| Earth Justice - 16 | The Port of Oakland has reported that in FY 2023, it has achieved an average of 83% shore power usage. USACE recognizes that the target compliance set by CARB is now 100%. This Project will assist with more successful plug ins by allowing ships to better maneuver and newer vessels will be plug in equipped. See response to EPA – 15 and Earth Justice – 24. | 6.4.3 Inner Harbor and Outer Harbor Expansion |
| Earth Justice - 16A | The IFR/EA properly represents the scope of the impacts associated with the Project. As explained above, while the international fleet will move toward larger ships, those same ships will be newer and, as echoed in the Carr Report, be more fuel efficient, and produce less emissions per TEU. In other words, one ULCV can carry the equivalent of multiple smaller average Port vessels and will produce less emissions than those smaller vessels. This amounts to overall lower air quality impacts. See also Draft EIR, Section 3.3, Table 3.3-10 for how the Project is expected to reduce air quality impacts from marine vessels. See GC-1 for how the Project does not induce growth. | 2.2.1: Port Operations and Economic Considerations |
| Earth Justice - 17 | Most of the Project will be occurring near the shore and on the water. Per Section 3.1 of the IFR/EA, a one-mile radius is "intended to account for potential construction traffic impacts in the areas closest to the construction sites". Both a 0.5-mile and a 1-mile radius was used in determining Census tracts that may or may not meet environmental justice criteria thresholds. The IFR/EA also states, "While the primary study area is the 0.5-mile radius, when considering the nexus between environmental justice and resources such as air quality which may be impacted over a wider area, it is contextually relevant to note that nine additional CTs within 1 mile of the Inner Harbor Turning Basin are minority environmental justice communities of concern (Table 7, Figure 9). Seven of these CTs are also low-income environmental justice populations of concern. Another five CTs have a very small portion of their total area within the outer limits of the Inner Harbor Turning Basin 1-mile radius and are consequently not shown in Table 7. No additional census tracts are within 1 mile of the Outer Harbor Turning Basin." The community of West Oakland was separately identified as a minority and low-income environmental justice community. Because of its status, it has been previously determined and analyzed both by BAAQMD and the | 3.1: Environmental Justice, 3.13: Air Quality |

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| | City of Oakland for disproportionate air quality impacts. This is further discussed in Section 3.13. The initial 1-mile radius was intended to conservatively cover the geographic extent of identified landside project impacts. This radius accounted for potential construction traffic impacts in the areas impacted by the construction sites. Overall, none of the resource area impacts exceeded the significance thresholds or documented impacts at greater distances so it did not suggest a need to identify environmental justice communities at a greater distance. This 1-mile radius did in fact capture part of the West Oakland community. All evidence, even that provided by Commenter, points toward lower emissions from ULCV per TEU, which is supported by the IFR/EA and the Draft EIR. | |
| Earth Justice - 18 | See Section 4.1 for a discussion of how the Project and the industry's move toward ULCVs with reduced emissions will reduce air quality impacts in support of the Justice40 Initiative. See response to comment EPA - 4 for information in how the project team held community stakeholder engagement meetings, including a specifically focused meeting on the environmental justice community of West Oakland, in conducting the analysis. Additional outreach occurred in October and November of 2023 by the Port of Oakland. Information from the previously held stakeholder sessions were integrated into the environmental justice analysis. The expansion of the turning basins would improve efficiency for vessels entering and exiting the port, decreasing both greenhouse gas emissions and criteria air pollutants. The expansion of the turning basins would not change the Port's overall volume of freight under the future without-project conditions. See GC-1. Considering this, the primary environmental resources that have the potential to effect environmental justice communities within a 1-mile radius of the study area include air quality, noise and vibration, and transportation and were included in the environmental justice analysis (Section 6.1 of the IFR/EA). The other resource areas were examined, but the impacts were expected to immediately occur within or adjacent to the construction areas and would not pose a potential impact to environmental justice communities. The Project, Alternative D-2, would facilitate electric dredging and the use of Tier 4 engines for off-road construction equipment as an emission minimization measure. For noise and vibration, traffic would be below noise significance thresholds and would be further mitigated by limiting the project to no more than 23 truck trips per hour from the Alameda worksite. Traffic increases from the project would be minor relative to the existing average daily traffic and would be minimized by a construction traffic control plan. Therefore, the air quality, noise and vibration, and transportation impacts on environmental justice impacts would be less than significant under Alternative D-2. See | 4.1: Problem Identification and Opportunities, 6.1: Environmental Justice, Appendix A04b: HRA |

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| | Section 6.1 of the IFR/EA and the Health Risk Assessment in Appendix A04b for more information. | |
| Earth Justice - 19 | The IFR/EA explains how the Project is in compliance with all federal, regional, state, tribal, and local land uses. With regards to the WOCAP, those strategies are the responsibility of the Port, therefore, USACE directs Commenter to the Port's Draft EIR for a detailed discussion regarding compliance. Although WOCAP is not binding on USACE, the Project will implement Measure AIR-1 which would comply with the spirit of WOCAP Strategy 27, limiting fugitive dust from construction activities. The Project will not interfere with the Port's ability to achieve zero-emission trucks, or other truck mitigation, electric barge and tugs, and Tier II and III marine vessels. See response to CARB – 3. Newer, larger vessels are more efficient, and their use should result in lesser emissions over time. The Project is intended to allow the Port to safely and efficiently accommodate the turning of vessels longer than 1,139 feet in length and is not anticipated to change the overall projected container volumes serviced at the Port. The expansion of port operations is not within the purview of USACE nor is it within the purpose of this Project. | 7.1: Environmental Compliance, EOs, and Permitting Requirements |
| Earth Justice - 20 | Title VI applies to recipients of federal financial assistance recipients but not USACE itself. USACE is not a party to the Title VI informal resolution agreement and EPA agrees that it does not apply to this Project, but USACE has committed with the Port to public engagement with WOIP and other community groups regarding this Project. See GC-1 for how the Project does not induce growth. | Section 5.7: Evaluation of Potential for Induced Growth |
| Earth Justice - 21 | Current NEPA regulations do not provide specific criteria for cumulative impact analyses, however the White House Council on Environmental Quality (CEQ) created a guidebook, "Considering Cumulative Effects Under the National Environmental Policy Act" (CEQ, 1997) for best practices. The analysis for this Project followed the process recommended in the guidebook. The guidebook defined a cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 C.F.R. 1508.1(g)(3))". A geographic scope and time frame was created for the past, present, and reasonably foreseeable future projects as recommended by the CEQ, which include projects that are close to the proposed turning basins expansion areas. Section 6.16 addresses cumulative impacts for this Project.<br><br>For environmental justice, the Project's action alternatives would have short-term, less-than-significant effects related to air quality, noise, and transportation during construction. The action alternatives | 3.13.2: Existing Air Quality Conditions, 6.1: Environmental Justice, 6.16: Cumulative Impacts |

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| | would not result in substantial adverse human health or environmental resource impacts that would disproportionately harm low-income communities and/or minority communities and minimization measures would be used to reduce the effects from construction. Additionally, past, present, and reasonably foreseeable projects were considered as part of the cumulative analysis, as documented in Table 75, which identified projects that could result in overlapping impacts to resources. Although there are no available analyses of environmental justice impacts for the past, present, and reasonably foreseeable projects, all projects listed would be required to implement mitigation measures to reduce potentially significant effects. This would lessen the effects to resources such as air quality, water quality and public health risks to surrounding communities.<br><br>The specific spatial extent for the cumulative analysis is then varied by resource. Air quality impacts as it relates to nearby communities can be found in the Environmental Justice Section, section 6.1 of the IFR/EA. All past, present, and future projects occurring within the San Francisco Bay Area Air Basin (SFBAAB) are to be compliant with associated thresholds for air quality. See response to Earth Justice – 15.<br><br>To further analyze the potential health effects of the action alternatives, a draft Health Risk Assessment (HRA) was prepared by the Port and is included as Appendix A04b for informational purposes. According to the Health Risk Assessment, previous studies conducted by California Air Resources Board (CARB), Bay Area Air Quality Management District (BAAQMD), the Port, and Union Pacific Railroad have characterized public health impacts from DPM emissions for the West Oakland community. The study area only included results within the West Oakland area, but quantified land and water-based sources, including bulk vessels that call Schnitzer/Radius Recycling. Schnitzer Steel/Radius Recycling was not included within the cumulative impacts analysis because they were already included in the West Oakland Community Action Plan and HRA and incorporated into the analysis. See also Section 3.13.2, Draft EIR Section 4.2. | |
| Earth Justice - 22 | See Earth Justice -21. | NA |
| Earth Justice - 23 | Widening the turning basins does not include any changes to the marine terminals that will increase the marine terminal's capacity or operations. Accordingly, the Project, and health risk assessment (HRA), were properly scoped to include all project components. To provide meaningful information to the public and decision makers, two HRA scenarios were modeled with results provided, that is an unmitigated scenario whereby Tier 4 engines are not available and a | Appendix A04b: HRA |

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| | mitigated HRA scenario whereby Tier 4 engines are available. Tier 4 engines were used in the analysis because of the minimization and measures that would be applied to each alternative. The requirement of Tier 4 engines would reduce long-term operational air pollution emissions from vessel transit efficiencies. See response to Earth Justice – 22 for a definition of cumulative impacts. Cumulative health impacts were included in the HRA, which can be found in Appendix A04b. Project health impacts were added based on the location and proximity of each project. However, there is an identified overestimation of risk because of differences in methodologies and values of other project HRAs, in addition to only using the maximum reported risk. Nevertheless, the Project is below the significance threshold. | |
| Earth Justice - 24 | The Tioga Report, IFR/EA Section 5.3, Appendix C, and the Draft EIR Section 6.3 all conclude that growth is determined by macroeconomic factors and not ship size. It is the assumption that ship size determines total cargo quantity that is incorrect. Whether there is significant cargo increases or not, the same amount of cargo can be brought on fewer, larger ships, or on a greater quantity of smaller ships. Either way, the same amount of cargo is brought to the Port. The enlarged turning basins will simply allow these larger vessels to maneuver more efficiently. In addition, while a larger ship may spend more time at berth than a smaller one, the Carr Report found it reasonable to assume that one larger vessel could replace two smaller ones, thereby spending less time at berth or attempting to berth on the whole. Contrary to commenter's assertions, the Project would allow for greater success in achieving shore power utilization. A ship's inability to utilize the turning basin contributes to its inability to plug in to the shore because their plug is on the wrong side of the ship because plugs are not uniformly on one side or the other. If all ships can utilize the turning basin, this will eliminate this problem and allow for higher utilization of shore power. Additional cargo is not anticipated from the widening of the turning basin, as the same throughput of containers is anticipated, and therefore no change to the Port's operations is included in any project alternative. As the greenhouse gas emissions analysis shows, it is anticipated that the Project will result in less greenhouse gas emissions over the project lifetime compared to the no-action alternative. Although an analysis spanning the entire project lifetime of 50 years is not required for the air quality analysis under the Clean Air Act, criteria air pollutant emissions are anticipated to follow a similar result as the greenhouse gas emissions analysis for decreased emissions from with action alternatives compared to the no-action alternative and would have improvements to air quality as a result. Additionally, current projections from the Port stemming from the CARB's Ocean-Going Vessels At-Berth Regulation are that vessels will be shore-powered | 5.6: Economic Benefits, Appendix C: Economics |

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| | by the year 2025 and the Port intends to be able to comply with the regulation and therefore the assumption for 100% shore power for vessels calling to the Port is justified in the greenhouse gas analysis. | |
| Earth Justice - 25 | Although the electrification of the terminal facilities at the Port is not covered within the scope of this Project, Section 2.2 addresses the target emissions of zero or near-zero by 2030 for maritime industry, which is set by the California Air Resources Boards (CARB). The Port will be responsible for ensuring their ordinance for reaching zero emissions is effective, your feedback is valuable as it could help the Port better stipulate the way the goal is reached. However, how the goal is reached does not necessarily invalidate use of the goal by USACE for the greenhouse gas analysis. Greenhouse gas emissions are calculated in Section 6.14 as required by NEPA. GHG emissions for the analysis of this Project were calculated using different methods and guidance directly from CARB and the U.S. Environmental Protection Agency based on the emission source. See Appendix A04c for the detailed calculations of indirect long-term emissions. | 2.2: Future Without-Project Conditions, 6.14: Greenhouse Gases, Appendix A04c: GHG Analysis |
| Earth Justice - 26 | Table 13 documents each species and their federal status that are known to occur or potentially occur within the project area. See Section 3.5 and 6.5 of the Integrated Feasibility Report/EA for more information on wildlife. The USACE consulted with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) regarding the potential effects of this project on special status species and regional wildlife. Both agencies have concurred with the determination of "may affect but not likely to adversely affect" or have findings of insignificant effect for wildlife that are known to occur or potentially occur within the project area. The determinations can be found in the Final Biological Assessment, the NMFS and USFWS LOCs and the Revised CAR in Appendices A01a, A01b, and A02. See response to Earth Justice - 27. | 3.5 & 6.5: Wildlife |
| Earth Justice - 27 | These impacts are discussed in section 6.4 on water quality, 6.5 on wildlife and 6.6 on Special status species as well as in the Biological Assessment, EFH Assessment and Fish and Wildlife Coordination Report. All the affects you list are addressed in these sections, in addition to the loss of sub-tidal habitat. The U.S. Fish and wildlife Service has concurred with the BA and finalized the Coordination Act Report per the Fish and Wildlife Coordination Act. A Final Coordination Act Report (CAR) was released on November 3, 2023, and is included in Appendix A2. An EFH assessment was prepared and can be found in Appendix A1b. NMFS completed an EFH consultation dated August 24, 2023, and concurred with the USACE determination that the proposed project may adversely affect EFH for various life stages of fish species managed under the Pacific Groundfish, Coastal Pelagic Species, and Pacific Coast Salmon EFH. No additional conservation measures beyond those proposed by | 6.4: Water Quality, 6.5: Wildlife, 6.6: Special Status Species and Protected Habitat, Appendix A01a: Biological Assessment, A01b: Essential Fish Habitat Assessment, Appendix A02: Fish and |

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| | USACE in the EFH Assessment were recommended by NMFS. This letter of concurrence affirms that USACE has adequately addressed potential impacts to wildlife. | Wildlife Coordination Compliance |
| Earth Justice - 28 | All these species are addressed in the IFR/EA. Oakland Harbor is not a feeding site of special importance to pinnipeds. While pinnipeds are expected to be occasionally present, minor impacts occurring in the immediate dredging area such as interruption to foraging may occur but is not determined to be significant under NEPA since the dredging area represents a small fraction of the foraging habitat available to them. With respect to noise, the IFR/EA describes how USACE will be coordinating with NMFS during the preconstruction engineering and design phase to develop appropriate protection for marine mammals, especially related to noise generated by piledriving. | 3.5 & 6.5: Wildlife, 3.6 & 6.6: Special Status Species and Protected Habitat |
| Earth Justice - 29 | The work windows are an avoidance and minimization measure developed by regional experts and regulatory agencies that are designed to minimize impacts by temporal means. The work window for salmonid species and other threatened or endangered fish are addressed in section 6.5. Commitment to working within these windows is documented in the ESA consultations for the Project and become permit requirements. Working outside of these windows would require additional coordination with ESA agencies to determine appropriate mitigation. USACE will look to the expertise of the ESA agencies to determine whether species are unexpectedly present and if their presence will require modification of USACE's construction schedule. See comment Earth Justice - 26. | 6.5: Wildlife |
| Earth Justice - 30 | See Earth Justice-29. USACE coordinates with USFWS on this, and USFWS has agreed with USACE's determination of "may affect but not likely to adversely affect" for least tern. The Project is 1.5 miles away from the colony. The Alameda colony overwhelmingly prefers foraging in the shallows off Bay Farm Island and along the southern Alameda shoreline. This is documented in the five years least tern foraging study conducted for the -50 ft Project. The USACE and Port restoration at the Middle Harbor Enhancement Area also supports some foraging that appears to be increasing. The deep waters of the turning basins do not support the numbers of small class of prey fish the colony needs to meet its energy needs. See Sections 3.6.2 and 6.6.2 for least tern information and dredging work windows for the species. The environmental work window is discussed in Section 6.6.2. | 3.6 & 6.6: Special Status Species and Protected Habitats |
| Earth Justice - 31 | Ship strikes are a serious issue on the open ocean and possibly in the Golden Gate area. Despite the example in the comment, ship strikes are a rare event inside the Bay. It becomes even less likely along the East Bay shoreline and in San Pablo Bay where the disposal haul routes are located. Dredging has occurred within the Bay for over one hundred years and there has never been a recorded ship strike. There | NA |

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| | also has not been a documented nor recorded blue or fin whale in the Bay, and if there were, it would have been a rare, single-event occurrence. The high number of strandings in the Bay from the comment are not linked directly to in-Bay strikes. | |
| Earth Justice - 32 | Once in the Bay, container ships are handled by Pilots, not the shipping companies, and they operate at safe speeds. Larger ships require more time to slow and stop and generally are operated at lower speeds in confined areas than smaller vessels. This project would decrease the number of ships transporting goods to the Bay with fewer, larger, slower vessels visiting. That means the Project would reduce the likelihood of a ship strike in transport to the Port. | 5.7: Evaluation of Potential for Induced Growth |
| Earth Justice - 33 | A greater number of calls by larger vessels would decrease the effects from noise from the smaller vessels that would no longer call to the Port. This would ultimately improve the soundscape overall. However, it is important to note the area in which the Project is being built is a highly disturbed area with respect to noise. The project area is a commercialized area adjacent to several manufacturing facilities and the Port, which produce noise levels that already deter wildlife. The facilities and Port would continue to produce these noise levels under the No-Action Alternative, which would maintain a low habitat quality surrounding the project area. The noise reduction from decreasing vessel calls anticipated for the with-action alternative could only benefit the surrounding project area, though due to surrounding land uses and their continued noise production, it isn't anticipated that habitat quality would appreciably improve. | 6.16 Analysis of Cumulative Impacts |
| Earth Justice - 34 | The source commenter provides actually states that "Conversely, if capacity continues to grow, noise emission levels could stay flat or be reduced if the capacity growth comes from larger ships that are no louder than existing ships." "A coming boom in commercial shipping? The potential for rapid growth of noise from commercial ships by 2030," 73 Marine Policy 119 (2016). Therefore, this source would support this Project as it would allow larger vessels to replace smaller vessels to accommodate growth rather than additional small vessels. In addition, the quote provided by commenter defines larger vessels as over 100 meters. The smallest containerships to call at the Port would be in the 130 meter range. See Section 2.1.5. As this is already a busy, existing Port, the quote and sources provided by commenter do not suggest that ULCVs produce more noise than the smaller cargo vessels they would replace. Therefore, USACE believes it has addressed commenter's concerns regarding noise. See response to Earth Justice - 33. The Project was properly scoped and analyzed in accordance with all project components. | NA |
| Earth Justice - 35 | Commenters incorrectly assume that the increase of larger vessels is correlated to the increased risk of oil spills in the future. The risk of an oil spill is influenced by a variety of conditions and factors specific to weather and sea conditions, port operations, and vessel | 1.2: Study Purpose & Scope and NEPA Purpose & Need |

specific factors. Weather and environmental conditions such as wind and currents can make navigation challenging. Vessel condition and maintenance, including hull, engines, and adherence to proper maintenance standards are crucial driving down the risk of an oil spill. Navigation and maneuverability within the port can also impact risk. Insufficient maneuvering space within a port, a condition this Project seeks to change, can lead to an oil spill accident. The consequence of an oil spill is mitigated by emergency response, the U.S. EPA is the federal response agency for oil spills occurring within inland waters, and the U.S. Coast Guard is the responsible agency for deepwater ports. The limited width of the turning basins results not only in navigation inefficiencies but may also increase the risk of groundings which could result in safety and environmental risks, such as oil spills.

Large vessels already call the Port and terminal operators manage the loading and unloading of both large and small vessels today. A future without the project would still expect around 257 ULCV vessel calls a year, for a total of 2,426 vessel calls from all vessel sizes. Appendix C. By doubling the amount of ULCVs, the expected number of vessel calls in 2050 would be 1,949. Earth Justice argues that simply the increase of ULCVs with additional oil results in more risk. However, considering the total vessel calls by ship type with their average fuel tank size, there would still be theoretically less fuel amount being carried by vessel into the Bay. While it would be impossible to predict the exact volume of fuel at any moment across all the vessel calls, a rough approximate total amount of fuel can be achieved. Utilizing a total fuel capacity of 1 million gallons for SPX, 1.5 million gallons for PPX, 2 million gallons for PPX1, 2.5 million gallons for PPX, 3.5 million gallons for PPX3, and 4.5 million gallons for PPX 4 in a future without the project annually, 6,645.5 million gallons of fuel capacity would call at the Port compared to 6,606.5 gallons of fuel in a future with the project.

| Vessel Type | Fuel tank in millions of gallons | Future without Project 2050 | Total Annual Fuel | Future with Project 2050 | Total Annual Fuel |
|---|---|---|---|---|---|
| SPX | 1 | 149 | 149 | 52 | 52 |
| PPX | 1.5 | 126 | 189 | 26 | 39 |
| PPX1 | 2 | 518 | 1036 | 92 | 184 |
| PPX2 | 2.5 | 701 | 1,752.5 | 397 | 992.5 |
| PPX3 | 3.5 | 675 | 2,362.5 | 880 | 3,080 |
| PPX4 | 4.5 | 257 | 1,156.5 | 502 | 2,259 |
| Total | | 2,426 | 6,645.5 | 1,949 | 6,606.5 |

for Action, 4.1 Problem Identification and Opportunities, Appendix C: Economics

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| | Further, marine vessel diesel fuel usage would also be less in a future with the project, at 12,665,542 gallons compared to 13,964,768 gallons without the project. See Draft EIR Table 3.6-5.<br><br>The contention that a future with the project, that allows for use of the turning basins by ULCVs would result in more oil spill risks than one without the project, where ULCVs must transit the Port with severe restrictions, causing delays, and increasing the total number of vessel calls at the Port, is unfounded.<br><br>Large ships may require more time being assisted by tugs for maneuvering, though the total amount of running time by the tug operators is also not expected to change due to the type of vessels calling to the Port, since they are waiting by on-notice in case they are needed. Therefore, the risk of oil spills by the tugboats would remain unchanged under the Project. | |
| Earth Justice - 36 | The numbers have changed slightly since your comment. The Project plans to take 454,416 yards of wetland cover and 1,712,325 yards of wetland non-cover material to a permitted wetland restoration site that will accept foundation material. Currently, the only permitted site in the Bay is Montezuma Wetlands, which USACE has frequently utilized in the past and is expected to have capacity for this Project and others into the future. However, dredged material has market value and is not considered waste in the same manner as the material that would only be suitable for a landfill. This creates the opportunity for competition amongst disposal site operators. Therefore, USACE remains open to the possibility that another equally situated disposal site may be available at the time of construction. The volume will vary from this once characterization has been completed. To reiterate, USACE will be taking every yard of material that is deemed suitable to a wetland restoration site. | Chapter 5: Recommended Plan |
| Earth Justice - 37 | The Project will be compliant with all requirements imposed by the landfill and will only dispose materials that are permitted. The landfills are subject to all local and federal laws and does not exist for the purpose of this Project. Therefore, its operation is not dependent on this Project. The landfill is over 3.5 miles away from Kettleman City at a remote area on Highway 41 and the traffic on I-5 through the Central Valley does not represent a significant increase to the airshed with respect to the Federal de minimis levels. Transportation of the material will be compliant with all applicable laws and regulations. | 6.12: Contaminants in Dredge or Fill Material |
| Earth Justice - 38 | USACE and the Port used existing sediment characterization from the last deepening effort combined with geologic maps to prepare a very conservative estimate of what we expect detailed sediment characterization to show. Complete analysis will be performed prior to construction in the preconstruction engineering and design phase. | 6.12: Contaminants in Dredge or Fill Material |

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| | The sampling analysis report will be presented to the DMMO for resource agency approval. The public will have the opportunity to comment on this issue during this process. | |
| Earth Justice - 39 | Dredged sediment testing is required for placement at any site and will be conducted prior to construction in the preconstruction engineering and design phase. It is unlikely potential toxic elements will become airborne due to the dredged sediment containing a significant amount of water. The dredged sediment is generally placed onsite within less than 24 hours. This would not be enough time for the sediment to dry out on the barge. | 6.12: Contaminants in Dredge or Fill Material |
| Earth Justice - 40 | The need for the Project is not dependent on certain TEU growth. Regardless of specific growth projections, the international fleet is moving toward ULCVs. As observed in the Carr Report, "Gen IV vessels are proliferating through the fleet" and "[a]s the fleet turns over, Gen IV vessels will call at California Ports in greater numbers." Page 12 and 9. The current turning basins cannot accommodate ULCVs or Gen IVs. Section 2.1.6, Pilot Restrictions on Large Container Vessels, of the IFR/EA discusses restrictions currently imposed due to narrow turning basins and safety risk. The project will allow these larger vessels to utilize the turning basins providing efficiency and air quality benefits even if growth slows. Finally, growth projections and this project's benefits are considered over long periods of time. The project period of analysis is 50 years, Section 3.3, Commodity Forecast, and Appendix C: Economics discusses growth forecast. Over this period growth is expected and benefits can be realized over this longer window, even if growth does not occur immediately.<br><br>The 2007 Cosco Busan oil spill was caused by pilot error from taking prescription pharmaceuticals. While this Project could not address that specific risk, it would eliminate the need to conduct other difficult maneuvers such as backing out of the berth to turn outside the Inner Harbor Channel, where there are less protections from currents. | 2.1.6: Pilot Restrictions on Large Container Vessels |
| Earth Justice - 41 | The goal of this Project is to improve navigation in the Oakland Harbor. Various nonstructural, structural, and operational measures were analyzed to determine the most technically feasible, economically justifiable, and environmental acceptable improvements to yield national economic development benefits for the Port. The analysis of non-structural and structural measures is compared in Table 27. The only measure that achieves the Project objectives is the widening of both turning basins. Thus, all alternatives consist of different combinations of economically competitive components, such as the footprints. Additionally, the IFR/EA considers a No Action Alternative, which compares the environmental consequences of the future without-project to the final | 4.1: Problem Identification and Opportunities |

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| | array of alternatives. See Table 40 and Section 4.1. for more information regarding plan formulation and alternative development and evaluation. USACE has not unreasonably defined the Project's objectives nor attempted to rationalize a decision already made. Diesel or electric dredging would not appreciably change the analysis of alternatives as the expansion of both turning basins, with diesel dredges, was found to be the preferred alternative over any of the individual basins due to the economic benefits. | |
| Earth Justice - 42 | As explained in the response to EPA's 2022 comments, an Outer Harbor Only Alternative with electric dredges was considered, but ultimately eliminated from further review because it would not provide the benefits of the NED Plan and electrification of dredging would increase the cost, thereby lowering the benefit cost ratio well below the alternatives carried forward for evaluation. The alternative of widening both turning basins with electric dredges was identified as the comprehensive benefit plan, which would maximize benefits across all benefit accounts USACE utilizes. Because an Outer Harbor only alternative would not maximize NED benefits, an Outer Harbor only alternative with electric dredges would not be a comprehensive benefit plan and therefore was not carried forward as such. Moreover, from the Environmental Justice perspective, an Outer Harbor Only alternative, regardless of dredging method, would potentially leave those communities adjacent to the Inner Harbor out of the localized air quality benefits stemming from more efficient ship traffic. See GHG analysis in Section 6.14. See also BCDC-3, EPA-2 for further explanation for how an Outer Harbor only alternative would not meet the project purpose nor provide improved air quality benefits. | 6.14: Greenhouse Gases |
| Earth Justice - 43 | Commenter refers to 33 C.F.R. § 230.6, however, the entirety of the regulation states that "District commanders may consider the use of an environmental assessment (EA) on these actions if early studies and coordination show that a particular action is not likely to have a significant impact on the quality of the human environment," which is precisely what USACE has done here. Therefore, USACE is in full compliance with its NEPA regulations.<br><br>An evaluation of air monitor placement would occur at a later state of the Project and USACE would seek input from the community with regard to its use and placement. Per the EPA Greenbook, Alameda County where the Project is located is in non-attainment (moderate) for $PM_{2.5}$, though there are no non-attainment restrictions for $NO_x$. As verified in the March 22, 2023 letter from the EPA, the project is in compliance with the Clean Air Act General Conformity regulations. Though electrification of tugs is outside the scope of this project, consideration will be given for using tugs equipped with Tier IV engines and electric tugs in the construction contract. A reduction in emissions from using tugs with Tier IV engines or electric tugs | 6.13: Air Quality |

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| | would not be necessary for Clean Air Act compliance and will need to consider based on other criteria. See GC-1 and 3. | |
| Earth Justice - 44 | In re-releasing the Draft IFR/EA, USACE considered your comments and preference for combining the NEPA and CEQA documents. However, the Draft EIR was released in October of 2023 and delaying the NEPA document to correspond with CEQA would have jeopardized USACE's ability to timely request authorization for the Project. While USACE and the Port have actively coordinated to ensure alignment between the NEPA and CEQA documents, these documents were too far along at the time of re-release to integrate them. Such integration would be time consuming, require significant public resources from both USACE and the Port, and delay any request for authorization, as explained previously. Therefore, USACE and the Port were unable to integrate the NEPA and CEQA document. In October 2023, the Port published its Draft EIR and USACE has reviewed it for consistency. See BCDC-6 and EPA-3 for further explanation regarding NEPA and CEQA integration. | NA |
| Earth Justice - 45 | See response to Earth Justice – 44. 40 C.F.R. § 1506.2 does not require integration of NEPA and CEQA documents and it was not practicable to do so here.<br><br>The USACE hosted multiple public meetings, see response to EPA – 4 for engagement opportunities. The Port plans to hold more public involvement opportunities for the release of their Draft EIR. USACE has also reached out to Earth Justice and the West Oakland Indicators Group specifically to discuss your concerns to facilitate your participation. | NA |
| Earth Justice – 46 | USACE did not defer acting on $NO_x$ emissions. The IFR/EA explained that the federal analysis did not require analysis of BAAQMD daily $NO_x$ thresholds. The Draft EIR has covered this analysis at 3.3-45-49. Both the NEPA and CEQA documents describe the same project and include the same mitigation and minimization measures. | 6.13: Air Quality |
| Earth Justice - 47 | The review period was extended four days beyond the required review period to allow the public to submit comments through the end of the work week, with the comment period closing on a Friday rather than on a Monday. The re-released draft included a summary of updated material, as not all sections needed to be revised. Therefore, USACE facilitated the review of this document so as to enable the public to review only what had been modified. Additional appendices included responses to public comments. | 7.2: Public Involvement |
| Earth Justice - 48 | The USACE hosted a number of public meetings. See response to EPA – 4 for previous engagement opportunities. In response to a letter from Earth Justice, the USACE offered to meet individually with Earth Justice and the community of West Oakland, which was held on September 7, 2023. As USACE has been dredging the Bay | 6.1: Environmental Justice |

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| | for over 100 years, the agency has a significant expertise in Bay sediments. For the Project, historical data was used to provide a conservative estimate as to the composition of the sediment. This information was sufficient for NEPA purposes. | |
| Exhibit A | For detailed responses to the February 14, 2022 comment letter, please see Appendix A10-2 to the Re-released Draft IFR/EA. | Appendix A10-2: Public Comment Responses |
| Earth Justice - 49 | The Port currently experiences inefficiencies due to pilot restrictions from Gen IV Post-Panamax vessels. The purpose of this Project is to investigate if there is a technically feasible, economically justifiable, and environmentally acceptable channel improvement to the Oakland Harbor to increase efficiency of containership movements and other port operations, which would yield national economic development benefits. See Section 1.2 of the IFR/EA for more information for the design of the project design vessel, which is estimated to be around 19,000 TEUs. See response to Earth Justice – 55 for more reference. USACE appreciates and has not considered the information you have provided with regard to the MSC Anna and MSC Amsterdam. | 1.2: Study Purpose & Scope and NEPA Purpose & Need for Action |
| Earth Justice - 50 | Acknowledged. Thank you for your comment. | NA |
| Earth Justice - 51 | Vessel and port operations are outside the purview of the Project. The Project would not generate emissions exceeding the Clean Air Act conformity *de minimis* thresholds and therefore would not have a significant effect on air quality. However, as it pertains to $NO_x$ emissions in the area, the air quality analysis performed for this study did find that daily emissions of $NO_x$ may exceed the local BAAQMD thresholds. The Project includes minimization measures to reduce the $NO_x$ emissions expected to be released from Project. See Appendix A07 and Section 3.3.4 of the Draft EIR for more information. Accepting Commenter's Carr Report as true, Gen IV Tier III $NO_x$ levels should still be lower than Tier I $NO_x$ levels, which the new vessels would be replacing. Under this theory, the addition of more Gen IV vessels would still be a net gain to the Port regarding lower $NO_x$ emission levels. | Appendix A07: Avoidance and Minimization Measures, 6.13 Air Quality |
| Earth Justice - 52 | You are correct. The Project does not expand or create new landside handling facilities and would not increase cargo throughput at the Port. Landside operations following the widening of the turning basins are assumed to remain consistent with existing conditions. See response to Earth Justice – 55 for reference. | 5.7: Evaluation of Potential for Induced Growth |
| Earth Justice - 53 | You are correct. Gen IV vessels are replacing older vessels and emit less pollution per TEU than those vessels. The Project will facilitate more efficient and safer navigation by expanding the turning basins to allow for Gen IV vessel usage. The expansion of use of Gen IV vessels is the product of macroeconomics and will occur independent of the Project. | 5.7: Evaluation of Potential for Induced Growth |

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| Earth Justice - 54 | Thank you for your comment. USACE agrees that a single larger ship may occupy the Port for less time than two smaller ships. See response to Earth Justice – 55. | NA |
| Earth Justice - 55 | See CARB-1, EPA-2. This type of "pulse" or "surge" is a regular occurrence at the Port. See Section 2.1.1. A detailed description of landside cargo facilities can be found at Draft EIR, Section 2.3.2. This section includes a description of "Surge Cargo Movement" which already occurs at the Port, such as around Chinese New Year. Therefore, the Port has various methods to "properly prepare" for the potential strain, as suggested by Carr. For instance, the Port utilizes advanced appointment systems that "eliminat[e] uncontrolled surge volumes (when volume exceeds available labor and equipment)." Draft EIR at 2-19. The cranes utilized to remove cargo from vessels are also electric, therefore high usage would not result directly in additional emissions. Thus, on-land traffic would not change in response to implementation of this Project. | 2.1.1: Port Operations |
| Earth Justice - 56 | Thank you for your comment. See responses to Earth Justice- 55. The Port has existing systems to that "efficiently plan for and stage cargo to be transported on and off the vessel." | NA |
| Earth Justice - 57 | Thank you for your comment. See responses to Earth Justice –55. The number of trucks required to move TEUs is a product of the amount of TEUs being received at the Port. Whether those TEUs are brought on smaller vessels or Gen IV vessels, the same amount of TEUs would need to be moved out of the Port. Therefore, there would not be a difference in air emissions from a future with the project or without with regard to truck movement. The Port has developed programs and is in the process of developing others to assist in more efficient truck movements. CARB-1, EPA-2, See Draft EIR Section 2.3.2. | 6.13: Air Quality, 5.7: Evaluation of Potential for Induced Growth |