

1 **3.3 AIR QUALITY AND GREENHOUSE GAS EMISSIONS**

AIR QUALITY AND GREENHOUSE GAS EMISSIONS – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2 **3.3.1 Environmental Setting**

3 **Air Quality**

4 Due to the similar overall nature between the Project and the Coscol MOT
 5 Deconstruction and Pipeline Abandonment Project Final MND (ESA 2009), several
 6 elements from that document (as updated to reflect current conditions, regulations, and
 7 policies) are cited in this section to preserve consistency for the CSLC. Because the
 8 current lease size of Port Costa Wharf MOT is much smaller than the Coscol MOT, the
 9 effort to deconstruct and remove materials would also be smaller. As an indicator of this
 10 size comparison, the Port Costa remnant main wharf structure is approximately 34 feet
 11 by 103 feet, whereas the Coscol MOT central landing platform was 60 feet by 160 feet.
 12 (See Section 2.0, Project Description and the Coscol MOT Final MND for a comparison
 13 of all associated MOT structures as well as the materials, equipment, facilities and
 14 processes required for the deconstruction and removal from these sites.) Therefore, the

1 associated emissions, air quality impact and any required mitigation measures from all
2 respective Port Costa Wharf MOT deconstruction and removal activities would be lower
3 in magnitude. Similar to the Coscol MOT Deconstruction, the duration of the Project is
4 anticipated to last up to 5 months. Because of the relative larger size of the Coscol MOT
5 Deconstruction Project and comparable project durations, any similar elements used in
6 this document are considered a conservative upper bounds estimate of air quality
7 impacts and mitigation.

8 **Criteria Pollutants**

9 Criteria air pollutants are a group of pollutants for which Federal or State regulatory
10 agencies have adopted health-based ambient air quality standards. Criteria air
11 pollutants include ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur
12 dioxide (SO₂), particulate matter (both PM₁₀ and PM_{2.5}), and lead (Pb). Most of the
13 criteria pollutants are directly emitted. However, ground-level O₃, also known as smog,
14 is a secondary pollutant that is produced by the photochemical reaction of sunlight with
15 volatile organic compounds, including non-methane organic gases (NMOG) and
16 nitrogen oxides (NO_x), that have been released into the atmosphere from the
17 combustion of fossil fuels.

18 Criteria air pollutants are classified in each air basin, county, or in some cases, within a
19 specific urbanized area. The classification is determined by comparing actual monitoring
20 data with State and Federal standards. If a pollutant concentration is lower than the
21 standard, the area is classified as “attainment” for that pollutant, and if an area exceeds
22 the standard, the area is classified as “non-attainment” for that pollutant. If not enough
23 data are available to determine whether the standard is exceeded in an area, the area is
24 designated “unclassified.”

25 The San Francisco Bay Area Air Basin (Basin) is monitored by the Bay Area Air Quality
26 Management District (BAAQMD) and is currently classified as non-attainment for State
27 PM₁₀ and PM_{2.5} standards as well as State 1- and 8-hour O₃ standards. With respect to
28 Federal standards, the Basin is classified as non-attainment for the 8-hour O₃ standard.
29 For all other State and Federal criteria air pollutant standards, the Basin is classified as
30 either unclassified or as attainment (BAAQMD 2012).

31 **Sensitive Receptors**

32 For the purposes of air quality and public health analyses, sensitive receptors are
33 generally defined as land uses with population concentrations that would be particularly
34 susceptible to disturbance from dust, air pollutant concentrations, or other disruptions
35 associated with project construction and/or operation. These receptors generally include
36 schools, day care centers, hospitals, residential areas, and parks. Some receptors are
37 considered more sensitive than others to air pollutants. The reasons for greater than

1 average sensitivity include pre-existing health problems, proximity to emissions sources,
2 or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes
3 are considered to be relatively sensitive to poor air quality because children, elderly
4 people, and the infirm are more susceptible to respiratory distress and other air quality-
5 related health problems than the general public. Residential areas are considered
6 sensitive to poor air quality because people usually stay home for extended periods of
7 time, with associated greater exposure to ambient air quality. Recreational uses are
8 also considered sensitive due to the greater exposure to ambient air quality conditions
9 because vigorous exercise associated with recreation places a high demand on the
10 human respiratory system.

11 The nearest receptors to the Project site are located in the unincorporated community of
12 Port Costa, which includes residential areas, a school, and a church as well as the
13 Carquinez Strait Regional Shoreline.

14 **Greenhouse Gas (GHG) Emissions and Climate Change**

15 Some gases in the atmosphere affect the earth's heat balance by absorbing infrared
16 radiation. These gases can prevent the escape of heat in much the same way as glass
17 in a greenhouse. This is often referred to as the "greenhouse effect," and it is
18 responsible for maintaining a habitable climate. There is widespread scientific
19 consensus that human-caused increases of the emissions of certain gases are
20 changing the solar energy heat balance in the atmosphere, enhancing the greenhouse
21 effect, and contributing to global warming. The gases believed to be most responsible
22 for global warming are carbon dioxide (CO₂), methane, nitrous oxide,
23 hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Of these gases, CO₂ and
24 methane are emitted in the greatest quantities from human activities. Emissions of CO₂
25 are largely by-products of fossil fuel combustion, whereas methane results primarily
26 from off-gassing associated with agricultural practices and landfills. CO₂ is the most
27 common reference gas for climate change. To account for the warming potential of
28 GHGs, GHG emissions are often quantified and reported as CO₂ equivalents (CO₂e).

29 Some of the potential resulting effects in California of global warming may include loss
30 in snow pack, sea level rise, and increases in extreme heat days per year, high O₃
31 concentration days, large forest fires, and drought years (California Energy
32 Commission 2012). Globally, climate change has the potential to impact numerous
33 environmental resources through potential, though uncertain, impacts related to future
34 air temperatures and precipitation patterns. The projected effects of global warming on
35 weather and climate are likely to vary regionally but are expected to include the
36 following direct effects (Intergovernmental Panel on Climate Change 2007):

- 37 • Higher maximum temperatures and more hot days over nearly all land areas;

- 1 • Higher minimum temperatures and fewer cold days and frost days over nearly all
- 2 land areas;
- 3 • Reduced diurnal temperature range over most land areas;
- 4 • Increase of heat index over land areas; and
- 5 • More intense precipitation events.

6 Secondary effects projected to result from global warming, include global rise in sea
7 level, impacts to agriculture, changes in disease vectors, and changes in habitat and
8 biodiversity. While the possible outcomes and the feedback mechanisms involved are
9 not fully understood, and much research remains to be done, the potential for
10 substantial environmental, social, and economic consequences over the long term may
11 be great.

12 The California Air Resources Board (CARB) estimated that in 2009, California produced
13 457 million gross metric tons (MT) of CO₂e GHG emissions (CARB 2011). The CARB
14 found that transportation is the source of 38 percent of the State's GHG emissions,
15 followed by electricity generation at 23 percent, and industrial sources at 18 percent.

16 The CARB is responsible for establishing and reviewing the State standards, compiling
17 the California State Implementation Policy (SIP), securing approval of that plan from the
18 U.S. Environmental Protection Agency (USEPA), and identifying toxic air contaminants.
19 The CARB also regulates mobile sources of emissions in California such as
20 construction equipment, trucks, and automobiles. For example, pursuant to California
21 Code of Regulations, Title 13, section 2485, on-road vehicles with a gross vehicular
22 weight rating of 10,000 pounds or greater cannot idle for longer than 5 minutes at any
23 location. This restriction does not apply when vehicles remain motionless during traffic
24 or when vehicles are queuing. In addition, off-road equipment engines, such as dozers,
25 trenchers, etc., cannot idle for longer than 5 minutes per California Code of Regulations,
26 Title 13, section 2449, subsection (d)(3). Exceptions to this rule include: idling when
27 queuing; idling to verify that the vehicle is in safe operating condition; idling for testing,
28 servicing, repairing, or diagnostic purposes; idling necessary to accomplish work for
29 which the vehicle was designed (such as operating a crane); idling required to bring the
30 machine to operating temperature as specified by the manufacturer; and idling
31 necessary to ensure safe operation of the vehicle.

32 The CARB also oversees the activities of California's air quality management districts
33 (AQMDs), which are organized at the county or regional level. County or regional
34 AQMDs are primarily responsible for regulating stationary sources at industrial and
35 commercial facilities within their geographic areas and for preparing the air quality plans
36 that are required under the Federal Clean Air Act and California Clean Air Act.

1 **3.3.2 Regulatory Setting**

2 Federal and State laws and regulations pertaining to this issue area and relevant to the
 3 Project are identified in Tables 1-2 and 3.3-1. Local goals, policies, and/or regulations
 4 applicable to this issue area are listed below.

Table 3.3-1. Federal and/or State Laws, Regulations, and Policies Potentially Applicable to the Project (Air Quality and GHGs)

U.S.	Federal Clean Air Act (FCAA) (42 USC 7401 et seq.)	<p>The FCAA requires the U.S. Environmental Protection Agency (USEPA) to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. National standards are established for ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (PM₁₀ and PM_{2.5}), and lead (Pb). In 2007, the U.S. Supreme Court ruled that carbon dioxide (CO₂) is an air pollutant as defined under the FCAA, and that the USEPA has authority to regulate GHG emissions. Pursuant to the 1990 FCAA Amendments, USEPA classifies air basins (or portions thereof) as in “attainment” or “nonattainment” for each criteria air pollutant, based on whether or not the NAAQS are achieved. The classification is determined by comparing monitoring data with State and Federal standards.</p> <ul style="list-style-type: none"> • An area is classified as in “attainment” for a pollutant if the pollutant concentration is lower than the standard. • An area is classified as in “nonattainment” for a pollutant if the pollutant concentration exceeds the standard. • An area is designated “unclassified” for a pollutant if there are not enough data available for comparisons.
CA	California Clean Air Act of 1988 (CCAA) (Assembly Bill [AB] 2595)	<p>The CCAA requires all air districts in the State to endeavor to achieve and maintain State ambient air quality standards for O₃, CO, SO₂, NO₂, and PM; attainment plans for areas that did not demonstrate attainment of State standards until after 1997 must specify emission reduction strategies and meet milestones to implement emission controls and achieve more healthful air quality. The 1992 CCAA Amendments divide O₃ nonattainment areas into four categories of pollutant levels (moderate, serious, severe, and extreme) to which progressively more stringent requirements apply. State ambient air standards are generally stricter than national standards for the same pollutants; California also has standards for sulfates, hydrogen sulfide (H₂S), vinyl chloride, and visibility-reducing particles.</p>
CA	California Global Warming Solutions Act of 2006 (AB 32)	<p>Under AB 32, CARB is responsible for monitoring and reducing GHG emissions in the State and for establishing a statewide GHG emissions cap for 2020 that is based on 1990 emissions levels. CARB (2009) has adopted the AB 32 Climate Change Scoping Plan (Scoping Plan), which contains the main strategies for California to implement to reduce CO₂ equivalent (CO₂e) emissions by 169 million metric tons (MMT) from the State’s projected 2020 emissions level of 596 MMT CO₂e under a business-as-usual scenario. The Scoping Plan breaks down the amount of GHG emissions reductions the CARB recommends for each emissions sector of the State’s GHG inventory, but does not directly discuss GHG emissions generated by construction activities.</p>
CA	Senate Bills (SB) 97 and 375	<p>Pursuant to SB 97, the State Office of Planning and Research prepared and the Natural Resources Agency adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. Effective as of March 2010, the revisions to the CEQA Environmental Checklist Form (Appendix G) and the Energy Conservation Appendix (Appendix F) provide a framework to address global climate change impacts in the CEQA process; State CEQA Guidelines section 15064.4 was also added to provide an approach</p>

Table 3.3-1. Federal and/or State Laws, Regulations, and Policies Potentially Applicable to the Project (Air Quality and GHGs)

		to assessing impacts from GHGs. SB 375 (effective January 1, 2009) requires CARB to develop regional reduction targets for GHG emissions, and prompted the creation of regional land use and transportation plans to reduce emissions from passenger vehicle use throughout the State. The targets apply to the regions covered by California’s 18 metropolitan planning organizations (MPOs). The 18 MPOs must develop regional land use and transportation plans and demonstrate an ability to attain the proposed reduction targets by 2020 and 2035.
CA	Executive Orders (EOs)	Under EO S-01-07, which set forth a low carbon fuel standard for California, the carbon intensity of California’s transportations fuels is to be reduced by at least 10 percent by 2020. EO S-3-05 established statewide GHG emission targets of reducing emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below the 1990 level by 2050.
CA	Other	Under California’s Diesel Fuel Regulations, diesel fuel used in motor vehicles, except harbor craft, has been limited to 500 parts per million (ppm) sulfur since 1993. The sulfur limit was reduced to 15 ppm beginning September 1, 2006, and harbor craft were included starting in 2009. CARB’s Heavy Duty Diesel Truck Idling Rule (Cal. Code Regs., tit. 13, § 2485) prohibits heavy-duty diesel trucks from idling for longer than 5 minutes at a time (except while queuing, provided the queue is located beyond 100 feet from any homes or schools). The Statewide Portable Equipment Registration Program (PERP) regulates portable engines/engine-driven equipment units. Once registered in the PERP, engines and equipment units may operate throughout California without the need to obtain individual permits from local air districts.

1 Bay Area Air Quality Management District. The Project site is located in Contra Costa
2 County, which is within the jurisdiction of the BAAQMD. The BAAQMD has produced
3 guidance for evaluating potential air quality impacts of projects. These guidance
4 documents are developed so that projects do not exceed any thresholds of significance
5 in the guidance, and thereby will be in conformity with BAAQMD air quality plans. The
6 2011 BAAQMD CEQA Guidelines, which is an advisory document that describes the
7 criteria that the BAAQMD uses when reviewing and commenting on the adequacy of
8 environmental documents, identifies methodologies for predicting project emissions,
9 recommends thresholds for use in determining whether projects would have significant
10 adverse environmental impacts, and identifies measures that can be used to avoid or
11 reduce air quality impacts.² Although lead agencies may rely on the updated BAAQMD
12 CEQA Guidelines for assistance in calculating air pollution emissions, obtaining

² In May 2011, the BAAQMD updated its 1999 CEQA Guidelines, “Assessing the Air Quality Impacts of Projects and Plans,” as a guidance document to provide lead government agencies, consultants, and project proponents with uniform procedures for assessing air quality impacts and preparing the air quality sections of environmental documents for projects subject to CEQA. Use of the updated Guidelines is on hold until a decision by the Court of Appeal of the State of California, First Appellate District, on whether the BAAQMD complied with CEQA when it adopted the updated thresholds.

1 information regarding the health impacts of air pollutants, and identifying potential
2 mitigation measures, they should continue to rely on the BAAQMD's 1999 Thresholds of
3 Significance and they may continue to make determinations regarding the significance
4 of an individual project's air quality impacts based on the substantial evidence in the
5 record for that project (BAAQMD 2012).

6 Therefore, for this MND, the CSLC relies on application of the 1999 BAAQMD
7 Guidance. Within this guidance, there are no specific thresholds of significance for
8 construction emissions. Rather, the BAAQMD emphasizes implementation of effective
9 and comprehensive control measures rather than detailed quantification of construction
10 emissions. Based on this finding, Phillips 66 would use the applicable comprehensive
11 control measures, now known as Basic Construction Mitigation Measures and
12 Additional Construction Mitigation Measures found in the 2011 BAAQMD CEQA
13 Guidelines. Further explanation can be found in the Impact Analysis section below.

14 The Federal Clean Air Act and the California Clean Air Act require plans to be
15 developed for areas designated as nonattainment (with the exception of areas
16 designated as nonattainment for the State PM₁₀ standard). The BAAQMD adopted the
17 2010 Bay Area Clean Air Plan, which replaced the existing Bay Area 2005 Ozone
18 Strategy. This plan includes O₃ control measures and also considers the impacts of
19 these control measures on particulate matter, air toxics, and GHGs in a single,
20 integrated plan (BAAQMD 2010).

21 Contra Costa County. The Conservation Element of the Contra Costa County General
22 Plan includes goals and policies that aim to improve local and regional air quality
23 throughout the County (Contra Costa County 2005). The following air resources policies
24 may be applicable to the Project:

- 25 • Policy 8-103 - When there is a finding that a proposed project might significantly
26 affect air quality, appropriate mitigation measures shall be imposed.
- 27 • Policy 8-104 - Proposed projects shall be reviewed for their potential to generate
28 hazardous air pollutants.

29 **3.3.3 Impact Analysis**

30 ***a) Conflict with or obstruct implementation of the applicable air quality plan?***

31 **Less than Significant Impact.** There would be no long-term operations associated with
32 the Project, and the removal of the existing wharf would cause no growth of any kind in
33 the Basin. As such, the Project would be consistent with the assumptions contained
34 within the 2010 Bay Area Clean Air Plan.

1 **b) Violate any air quality standard or contribute substantially to an existing or**
 2 **projected air quality violation?**

3 **Less than Significant with Mitigation.** Deconstruction activities would cause short-
 4 term impacts associated with exhaust emissions and fugitive dust. The Project is
 5 expected to last up to 5 months, so there would be no long-term operations or
 6 emissions associated with the Project.

7 **Impact AIR-1: Temporary Deconstruction Emissions of Criteria Pollutants. Project**
 8 **deconstruction activities could result in substantial short-term emissions of**
 9 **criteria pollutants.**

10 BAAQMD recommends using urban emissions software (URBEMIS) or the California
 11 Emissions Estimator Model (CalEEMod) to quantify construction emissions for these
 12 types of proposed projects. Following quantification of Project-generated construction-
 13 related emissions, the total average daily emissions of each criteria pollutant and
 14 precursor should be compared with the lead agency’s determined project thresholds. If
 15 daily average emissions of construction-related criteria air pollutants or precursors do
 16 not exceed the lead agency’s determined thresholds for the project, the project has a
 17 less-than-significant impact to air quality. If daily average emissions of construction-
 18 related criteria air pollutants or precursors do exceed project thresholds, the proposed
 19 project has a significant impact to air quality and requires mitigation measures for
 20 emission reductions. The criteria pollutant emissions estimates below (see Table 3.3-2)
 21 for off-road equipment and vehicles were derived from CalEEMod, and the marine
 22 vessel emissions estimates were produced using a customized spreadsheet using
 23 CARB emission factors. CalEEMod has a module to account for certain mitigation
 24 measures, and these were implemented using the Basic Construction Mitigation
 25 Measures from the 2012 Updated BAAQMD CEQA Guidelines. Specific measures from
 26 **MM AIR-1** were implemented into CalEEMod to mitigate PM₁₀ emissions. The full
 27 calculation methodology, CalEEMod output, marine vessel spreadsheet, and other
 28 supporting materials can be found in Appendix C.

29 **Table 3.3-2. Mitigated Short-Term Criteria Pollutant Emissions for Port Costa**

Emission Sources	Maximum Daily (Pounds Per Day)				Total Tons			
	NO _x	ROG	PM ₁₀	PM _{2.5}	NO _x	ROG	PM ₁₀	PM _{2.5}
Off-Road Equipment & Vehicles	83.92	7.83	4.47	4.00	4.29	0.40	0.24	0.20
Marine Vessels	152.87	17.06	5.38	4.95	3.17	0.37	0.11	0.10
Total	236.79	24.89	9.85	8.95	7.46	0.77	0.35	0.30

Source: AECOM 2013

1 Criteria pollutant emissions of reactive organic gases (ROG) and NO_x from Project
2 emission sources would incrementally add to the regional atmospheric loading of O₃
3 precursors. The BAAQMD recognizes that construction equipment emits O₃ precursors,
4 but indicates that such emissions are included in the emissions inventory that serves as
5 the basis for regional air quality plans. Phillips 66 would implement **MM AIR-1** to keep
6 construction equipment in good working order and in compliance with emission
7 regulations. Therefore, exhaust emissions from deconstruction equipment would not
8 violate any air quality standard. Furthermore, there are no existing or projected air
9 quality violations associated with this Project to which emissions from deconstruction
10 activities could contribute.

11 Implementation of the following mitigation measures would reduce potentially significant
12 impacts to less than significant.

13 **MM AIR-1a. Basic Construction Measures.** The Applicant shall comply with the
14 following measures per the Bay Area Air Quality Management District's (BAAQMD's)
15 California Environmental Quality Act Guidelines:

- 16 • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded
17 areas, and unpaved access roads) shall be watered two times per day.
- 18 • All haul trucks transporting soil, sand, or other loose material off-site shall be
19 covered.
- 20 • All visible mud or dirt track-out onto adjacent public roads shall be removed
21 using wet power vacuum street sweepers at least once per day. The use of
22 dry power sweeping is prohibited.
- 23 • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- 24 • Idling times shall be minimized either by shutting equipment off when not in
25 use or reducing the maximum idling time to 5 minutes (as required by the
26 California airborne toxics control measure [Cal. Code Regs., tit. 13, § 2485]).
27 Clear signage shall be provided for construction workers at all access points.
- 28 • All construction equipment shall be maintained and properly tuned in
29 accordance with manufacturer's specifications. All equipment shall be
30 checked by a certified mechanic and determined to be running in proper
31 condition prior to operation.
- 32 • The Applicant shall post a publicly visible sign with the telephone number and
33 person to contact at the lead agency regarding dust complaints. This person
34 shall respond and take corrective action within 48 hours. The BAAQMD's
35 phone number shall also be visible to ensure compliance with applicable
36 regulations.

- 1 • If daily average emissions of construction-related criteria air pollutants or
2 precursors exceed CSLC’s determined thresholds for the project, the
3 Applicant shall implement additional construction mitigation measures
4 provided in Table 8-2 of the BAAQMD (2012) CEQA Guidelines.

5 **MM AIR-1b: Vessels and Equipment.** Project vessels and equipment that rely on
6 internal combustion engines for power and/or propulsion shall be kept in good
7 working condition and compliant with California emission regulations. Maintenance
8 logs shall be provided to the California State Lands Commission staff prior to
9 deconstruction and on a monthly basis during deconstruction.

10 **MM AIR-1c: Nearby Sensitive Receptors.** Residences in the Project vicinity shall
11 be notified of the Project schedule and duration a minimum of 2 weeks prior to
12 deconstruction activities. In addition, if work is planned during the school year,
13 schools in the vicinity shall also be notified of the Project schedule and duration.

14 ***c) Result in a cumulatively considerable net increase of any criteria pollutant for***
15 ***which the project region is non-attainment under an applicable federal or state***
16 ***ambient air quality standard (including releasing emissions which exceed***
17 ***quantitative thresholds for ozone precursors)?***

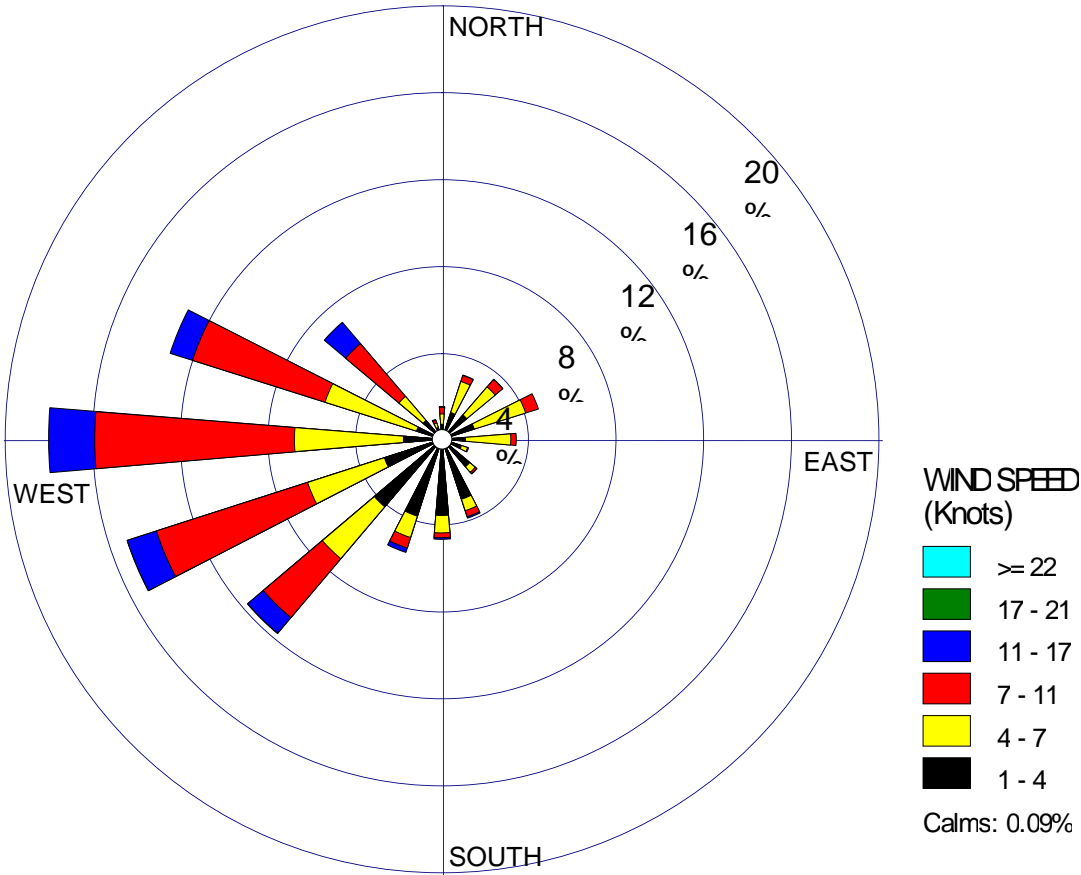
18 **Less than Significant Impact.** The BAAQMD CEQA Guidelines set forth a
19 methodology to evaluate cumulative impacts (BAAQMD 2012). For any project that
20 does not individually have significant air quality impacts, the determination of a
21 significant cumulative impact should be based on an evaluation of the consistency of
22 the project with the local general plan and of the general plan with the regional air
23 quality plan. As demonstrated above, the Project would be consistent with the 2010 Bay
24 Area Clean Air Plan and would not result in an operational air quality impact. In addition,
25 the Project would be consistent with the air quality policies in Contra Costa County. As
26 such, the Project would not result in a significant cumulative impact. Cumulative impacts
27 associated with criteria pollutants would be less than significant.

28 ***d) Expose sensitive receptors to substantial pollutant concentrations?***

29 **Less than Significant Impact.** Deconstruction activities for the entire Project would be
30 expected to last for up to 5 months. Because of the short deconstruction period and the
31 fact that much of the activity and associated emissions are expected to occur
32 approximately 0.6 mile from the nearest residential neighborhood of Port Costa,
33 operation of the Project would not expose sensitive receptors to substantial
34 concentrations of criteria air pollutants. A windrose taken from an unrelated study in
35 Martinez (see Figure 3.3-1), indicates that the wind in this area of the Carquinez Strait
36 primarily blows from West to East. This means that emissions from the Project would

1 tend to drift into the Strait away from any sensitive receptors including Port Costa to the
 2 northwest, Benicia to the northeast, and Martinez to the southeast.

3 **Figure 3.3-1. Windrose for Project Area**



4 (Source: ENSR/AECOM 2005)

5 The prevailing local wind direction along with the varying topography along the Strait
 6 would effectively disperse air emissions from the Project, minimizing exposure to any
 7 sensitive receptors. In addition to the criteria pollutants, toxic air contaminants would be
 8 generated by the use of diesel-fueled construction equipment. Diesel particulate matter
 9 (DPM) can be carcinogenic over long exposure durations (e.g., many years). However,
 10 nearby receptors would be exposed to construction emissions for only a portion of the
 11 potentially 5-month construction period. Consequently, DPM impacts on sensitive
 12 receptors would be less than significant. As such, the Project would not result in a
 13 significant cumulative impact from toxic air contaminants. Cumulative impacts
 14 associated with toxic air contaminants would be less than significant.

1 **e) Create objectionable odors affecting a substantial number of people?**

2 **Less than Significant Impact.** Deconstruction of the Project could conceivably
 3 generate odors from the combustion of fuels. The presence of an odor impact is
 4 dependent on a number of variables including:

- 5 1. Nature of the odor source (e.g., wastewater treatment or food processing plant);
- 6 2. Frequency of odor generation (e.g., daily, seasonal, activity-specific);
- 7 3. Intensity of the odor (e.g., concentration);
- 8 4. Distance of the odor source to sensitive receptors (e.g., miles);
- 9 5. Wind direction (e.g., upwind or downwind); and
- 10 6. Sensitivity of the receptor (BAAQMD 2012).

11 Project activities would primarily take place in an open area on Carquinez Strait where
 12 any odors would be dispersed. Therefore, impacts would be less than significant.

13 **f) Generate GHG emissions, either directly or indirectly, that may have a**
 14 **significant impact on the environment?**

15 **g) Conflict with the State goal of reducing greenhouse gas emissions in California**
 16 **to 1990 levels by 2020, as set forth by AB 32, California Global Warming Solutions**
 17 **Act of 2006?**

18 **Less than Significant Impact.** Because the Project is expected to last no more than
 19 5 months, GHG emissions associated with the deconstruction and removal of the wharf
 20 and related structures would be short-term. Therefore, there would be no long-term
 21 operations or GHG emissions impacts associated with the Project.

22 The GHG emissions estimates below for off-road equipment and vehicles were derived
 23 from CalEEMod and the marine vessel GHG emissions estimates were produced using
 24 a customized spreadsheet using CARB emission factors. The full calculation
 25 methodology, CalEEMod output, marine vessel spreadsheet and other supporting
 26 materials can be found in Appendix C. GHG emissions estimates for the Project are
 27 presented below in Table 3.3-3.

28 **Table 3.3-3. GHG Emission Estimates**

Emission Sources	Total CO ₂ e (Metric Tons)
Off-Road Equipment & Vehicles	351.72
Marine Vessels	229.54
Total	581.26

Source: AECOM 2013

1 The BAAQMD does not have an adopted threshold of significance for construction-
2 related GHG emissions in its 2011 updated CEQA Guidelines. Rather, it states that lead
3 agencies should quantify and disclose GHG emissions that would occur during
4 construction/demolition, and make a determination on the significance of these
5 construction-generated GHG emissions. Although the 1999 Guidelines do not contain
6 thresholds to evaluate operational or construction-phase GHG emissions, the CSLC
7 hypothetically applied to the 1999 Guidelines to help evaluate construction-phase GHG
8 emissions. The 581 total MT CO₂e generated from the Project are below the 10,000 MT
9 CO₂e/year for stationary sources and below the 1,100 MT CO₂e/year for projects other
10 than stationary sources. This hypothetical comparison indicates that the total Project
11 GHG emissions are considered to be less than significant, and would not conflict with
12 the State goal of reducing GHG emissions in California to 1990 levels by 2020.

13 **3.3.4 Mitigation Summary**

14 Implementation of the following measures would reduce Project-related emissions to
15 less than significant.

- 16 • MM AIR-1a: Basic Construction Measures;
- 17 • MM AIR-1b: Vessels and Equipment; and
- 18 • MM AIR-1c: Nearby Sensitive Receptors.