

# EXECUTIVE SUMMARY

## INTRODUCTION

The Martinez Refinery Renewable Fuels Project (Project) is a request by Marathon Petroleum Corporation (Marathon or the Applicant) for entitlements to modify operations of their existing refinery at 150 Solano Way, in unincorporated lands east of the city of Martinez, east of Pacheco Creek and south of Suisun Bay. The request was submitted to the Contra Costa County Department of Conservation and Development (DCD) for land use permit approval (County File No. CDLP20-02046), and more specifically, involves equipment modifications and repurposing of the existing refinery facility to discontinue production of fossil fuels and switch to production of fuels from renewable sources including rendered fats, soybean and corn oil and other cooking or vegetable oils.

The requested physical and operational changes associated with the proposed Project constitute a “project” as defined by the California Environmental Quality Act (“CEQA,” Public Resources Code Section 21000 *et seq.*), the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 *et seq.*), and the Contra Costa County Guidelines for Administering CEQA (“County CEQA Guidelines,” Contra Costa County Resolution No. 2010/402). The Project also requires discretionary action by Contra Costa County (County), wherein the County has the authority to use its judgment in deciding whether or how to carry out or approve the Project. Therefore, the Project is subject to the requirements of CEQA.

DCD is serving as the lead agency responsible for preparing this Environmental Impact Report (EIR) in compliance with CEQA to analyze the environmental impacts associated with the Project. This EIR will provide the Contra Costa County decision-making bodies and other responsible agencies the information required to exercise their respective permitting authorities with respect to the proposed Project.

## PROJECT OBJECTIVES

The Applicant has identified the following objectives for the Project:

- Repurpose the Marathon Martinez Refinery to a renewable fuels production facility.
- Eliminate the refining of crude oil at the Martinez Refinery while preserving high quality jobs.
- Provide renewable fuels to allow California to achieve significant progress towards meeting its renewable energy goals.
- Produce renewable fuels that significantly reduce the lifecycle generation of greenhouse gas emissions, as well as other criteria pollutants including particulate matter.
- Reduce emissions from mobile sources by providing cleaner burning fuels.
- Repurpose/reuse existing critical infrastructure, to the extent feasible.

## ORGANIZATION OF THE EIR

The EIR contains the following sections:

- **Chapter 1 – Introduction** includes a general overview of the proposed project, the environmental review process, and purpose and scope of the EIR.
- **Chapter 2 – Project Description** describes the proposed Project, its location and facilities, an overview of its operation, and schedule.
- **Chapter 3 – Environmental Impact Analysis, Methodology, and Baseline** describes existing environmental conditions within issue areas, Project-specific impacts and associated mitigation measures, and includes the reference materials used to prepare the analysis.
- **Chapter 4 – Cumulative Impacts** describes the cumulative environmental impacts of the proposed Project when combined with other projects located in the vicinity of the Project Site and lists the projects considered in the evaluation of cumulative impacts.
- **Chapter 5 – Alternatives** describes the alternatives to the Project carried forward for analysis and the alternative that was considered but eliminated from detailed evaluation.
- **Chapter 6 – Other CEQA Considerations** addresses other required CEQA elements, including significant irreversible effects and evaluation of growth-inducing impacts of the Project.
- **Chapter 7 – List of Preparers and References** presents information on the individuals who prepared the EIR and their qualifications.

## PROPOSED PROJECT

The Marathon Martinez Refinery (Refinery) is located at 150 Solano Way, Martinez, California. The site is situated on the Carquinez Strait in Contra Costa County (see Figure 2-1). The Refinery is located 3.25 miles east of downtown Martinez along Solano Way between Waterfront Road and Monsanto Way. Access to the Refinery is provided from the south via gated entrance on Solano Way and from the west via gated entrance on Waterfront Road.

The Refinery is situated east of Pacheco Creek, on the southern shore of Suisun Bay. Suisun Bay is connected to San Pablo Bay via the Carquinez Strait, a narrow, 12-mile-long band of water that extends from the Benicia-Martinez Bridge westward to Mare Island. In addition to Marathon's Martinez Refinery, the Carquinez Strait, including its junction with San Pablo Bay, is host to numerous refinery facilities and their associated marine terminals. The Marathon Martinez Refinery has marine access through two marine oil terminals (MOTs) on Suisun Bay and the Carquinez Strait, namely the Avon MOT and Amorco MOT. Both MOTs are owned by Andeavor Logistics, LP, also a wholly owned subsidiary of Marathon. The Avon MOT is located on approximately 13.3 acres of leased sovereign land in the lower Suisun Bay, approximately 1.75 miles east of the Benicia-Martinez Bridge, in unincorporated Contra Costa County. The Amorco MOT is located on approximately 14.3 acres of leased sovereign land, approximately 0.6 miles west of the Benicia-Martinez Bridge in the city of Martinez. Lease agreements for both MOTs are managed by the California State Lands Commission.

The Refinery's operations are currently permitted by the Bay Area Air Quality Management District (BAAQMD), and the facility has a reported crude oil refining capacity of 161,000 barrels per day (bpd), though Marathon recently suspended refining of crude oil in April 2020. Prior to idling of the Refinery, the majority of crude oil refined at the site was received via ship, with additional crude arriving at the facility by pipeline, and other (non-crude) refinery commodities arriving by rail. Following cessation of refining operations, crude oil continued to be received at the facility's marine oil terminals for storage and distribution to other facilities for refining; however, no crude oil was processed into fuels at the Refinery. Products that can be produced at the Refinery with existing equipment include conventional diesel fuel, gasoline, distillates, petroleum coke, liquefied petroleum gas (LPG), heavy fuel oil and refinery-grade propylene. Distribution of products from the Refinery to the market can be conducted by truck, rail, ship and pipeline.

The proposed Project is a request by Marathon to repurpose the existing Refinery to discontinue refining of crude oil and switch to production of fuels from renewable feedstock sources including rendered fats, soybean and corn oil, and potentially other cooking and vegetable oils, but excluding palm oil. Construction of the proposed Project would begin as soon as all necessary permits are received, with a target date of 2022. Marathon anticipates that operations under the proposed Project would begin in 2022 with an estimated production of 23,000 bpd, ramping up to full production of 48,000 bpd expected to be achieved by the end of 2023. The repurposed Refinery would operate 24 hours per day, seven days per week.

## **ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

This EIR includes a detailed evaluation of the potentially significant environmental effects that could result from implementation of the Project on a variety of resource topics. The following Table ES-1 presents a summary of potential impacts of and mitigation measures for the proposed Project.

Table ES-1: Summary of Project Impacts and Mitigation Measures

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
3.2 Aesthetics	AES-1	Have a substantial adverse effect on a scenic vista.	Less than Significant	No mitigation required.	Less than Significant
	AES-2	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	Less than Significant	No mitigation required.	Less than Significant
	AES-3	Substantially degrade, in non-urbanized areas, the existing visual character or quality of public views of the site and its surroundings, where public views are those that are experienced from publicly accessible vantage points.	Less than Significant	No mitigation required.	Less than Significant
	AES-4	Conflict with applicable zoning and other regulations governing scenic quality for a project site located in an urbanized area.	Less than Significant	No mitigation required.	Less than Significant
	AES-5	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	Less than Significant	No mitigation required.	Less than Significant
3.3 Air Quality	AQ-1	Construction emissions or health risk below the thresholds of significance identified in the BAAQMD CEQA Guidelines.	Less than Significant	<p><b>Mitigation Measure AQ-1a:</b> Implement BAAQMD Basic Construction Measures.</p> <p>The following measures will be implemented during construction:</p> <ul style="list-style-type: none"> <li>All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas and unpaved access roads) shall be watered two times per day.</li> <li>All haul trucks transporting soil, sand or other loose material off-site shall be covered.</li> <li>All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.</li> <li>All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.</li> <li>All roadways, driveways and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.</li> <li>Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of</li> </ul>	Less than Significant

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				<p>Regulations). Clear signage shall be provided for construction workers at all access points.</p> <ul style="list-style-type: none"> <li>All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</li> <li>Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.</li> </ul>	
				<p><b>Minimization and Measure AQ-1b</b>            Implement best management practices for construction activities.            The following air emissions reduction BMPs shall be implemented to the maximum extent practicable by the applicant and construction contractors. The following measures shall be included as recommended practices incorporated into all construction contracts related to the Project:</p> <ul style="list-style-type: none"> <li>Provide the necessary infrastructure to support the zero and near-zero emission technology vehicles and equipment that will be operating on-site. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, on-site vehicles, and medium-heavy and heavy-heavy duty trucks.</li> <li>Portable equipment used during construction should be powered by electricity from the grid or onsite renewable sources, instead of diesel-powered generators.</li> <li>All off-road diesel-powered equipment used during construction shall be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road</li> </ul>	Less than Significant

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				<p>equipment can incorporate retrofits such that emission reductions achieved equal or exceed that of a Tier 4 engine.</p> <ul style="list-style-type: none"> <li>All off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers), used during project construction shall be battery powered.</li> <li>All heavy-duty trucks entering the construction site, during the grading and building construction phases shall be model year 2014 or later, to the maximum extent practicable. All heavy-duty haul trucks shall also meet CARB's lowest optional low-NOx standard starting in the year 2022, to the maximum extent practicable.</li> </ul>	
	AQ-2	Operations emissions in excess of the thresholds of significance identified in the CEQA Guidelines.	Significant and Unavoidable	No mitigation required.	Significant and Unavoidable
	AQ-3	Health risk from Project operations in excess of the thresholds of significance identified in the BAAQMD CEQA Guidelines.	Less than Significant	No mitigation required.	Less than Significant
	AQ-4	Cumulative criteria pollutant health risk in excess of the thresholds of significance identified in the BAAQMD CEQA Guidelines.	Significant and Unavoidable	Implementation of this Project would reduce overall PM <sub>2.5</sub> concentrations. However, additional emissions reductions from non-Project sources would be required to reduce the PM <sub>2.5</sub> concentration to below the significance threshold.	Significant and unavoidable
	AQ-5	Creation of objectionable odors.	Potentially Significant	<b>Mitigation Measure AQ-2:</b> During construction phase of the Project, the operational Odor Management Plan (OMP) shall be developed and implemented upon commissioning of the renewable fuels processes, intended to become an integrated part of daily operations at the Facility and other sites, so as to prevent any objectionable offsite odors and effect diligent identification and remediation of any potential objectionable odors generated by the facility and associated sites. The plan shall outline equipment that is in place and procedures that facility personnel shall use to address odor issues, facility wide. The OMP shall include continuous evaluation of the overall system performance, identifying any trends to provide an opportunity for improvements to the plan, and updating the odor management and control strategies, as	Less than Significant

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				<p>necessary. This plan shall be retained at the facility for County or other government agency inspection upon request.</p> <p>The following practices shall be included in the OMP to reduce the potential of objectionable odors from the storage of renewable feedstocks, operation of the wastewater treatment plant, and any other odor generating activity:</p> <ul style="list-style-type: none"> <li>• Develop operating procedures to inspect and evaluate the effectiveness of odor control equipment and operation of the wastewater treatment plant.</li> <li>• Inspections conducted on a semi-annual basis.</li> <li>• If there are fewer than an average of five confirmed complaints per year during the first 3 years of operation, then the inspection frequency can be reduced to an annual basis.</li> <li>• If there are more than five complaints in any single year, then the application shall develop additional mitigation strategies in consultation with the BAAQMD.</li> </ul> <p>The Odor Management Plan shall be submitted to the Department of Conservation and Development for review and approval prior to commissioning of the renewable fuels process.</p>	
	AQ-6	The Project conflicts with or obstructs implementation of applicable air quality plan.	Less than Significant	No mitigation required.	Less than Significant
<b>3.4 Biological Resources</b>	BIO-1	Cause substantial temporary impacts to special-status species due to renovation activity.	Potentially Significant (Construction)	<p><b>Mitigation Measure BIO-1a: General Work Site Best Management Practices.</b> The following measures shall be included on all plans and employed by Marathon and its contractors to avoid and minimize impacts to water quality and other beneficial characteristics of wetlands at the Project Site:</p> <ul style="list-style-type: none"> <li>• No debris, soil, silt, sand, cement, concrete or washings thereof, or other construction-related materials or wastes, oil or petroleum products, or other organic or earthen material shall be allowed to enter into or be placed where it may be washed</li> </ul>	Less than Significant

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				<p>by rainfall or runoff into marshes or open water/ditches adjacent to the work areas.</p> <ul style="list-style-type: none"> <li>• All personnel and their equipment shall be required to stay within the designated construction area to perform job-related tasks and shall not be allowed to enter wetlands, drainages and habitat of listed species.</li> <li>• Pets shall not be allowed in or near the construction area.</li> <li>• Firearms shall not be allowed in or near the construction area, except for armed Marathon security officers who may periodically patrol work sites. No intentional killing or injury of wildlife shall be permitted.</li> <li>• The construction site shall be maintained in a clean condition. All trash (e.g., food scraps, cans, bottles, containers, wrappers, cigarette butts and other discarded items) shall be placed in closed containers and properly disposed off-Site.</li> <li>• After construction is completed, final cleanup shall include removal of all stakes, temporary fencing, flagging and other refuse generated by construction. Vegetation shall not be removed or disturbed in the cleanup process.</li> </ul>	
				<p><b>Mitigation Measure BIO-1b: Spill and Accidental Discharge Prevention.</b> The following measures shall be included on all plans and employed by Marathon and its contractors. Marathon and its contractors shall be responsible for structure operations in a manner that minimizes the risk of spills or the accidental discharge of fuels or hazardous materials. Marathon and its contractors shall, at a minimum, ensure that:</p> <ul style="list-style-type: none"> <li>• All employees handling fuels and other hazardous materials are properly trained.</li> <li>• All equipment is in good operating order and inspected regularly.</li> <li>• Hazardous materials, including chemicals, fuels and lubricating oils, shall not be stored within 200 feet of a wetland or water body. This applies to</li> </ul>	

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				<p>storage of these materials and does not apply to normal operation or use of equipment in these areas.</p> <ul style="list-style-type: none"> <li>If refueling is needed on-Site, it will occur at least 100 feet from a surface water feature, and in a designated refueling area with secondary containment/plastic sheeting and a spill containment kit.</li> </ul>	
				<p><b>Mitigation Measure BIO-1c: Emergency Spill and Containment Plan.</b> The following measures shall be included on all plans and employed by Marathon and its contractors. In the event of an accidental spill, the Facility Oil Spill Contingency Plan shall be implemented. Site-specific provisions shall be listed on the Safe Work Permit and included within the job plan maintained on-Site.</p> <p>At a minimum, Marathon and its contractors shall:</p> <ul style="list-style-type: none"> <li>Ensure that each construction crew (including clean-up crews) has sufficient supplies of absorbent and barrier materials on-Site to allow the rapid containment and recovery of spilled materials, and that each construction crew knows the procedure for reporting spills.</li> <li>Ensure that each construction crew has sufficient tools and material on Site to stop leaks.</li> <li>Know the contact names and telephone numbers for all Marathon Martinez Refinery contacts and local, state and federal agencies (including, if necessary, the U.S. Coast Guard and the National Response Center) that might need to be notified in the event of a spill.</li> <li>Follow the requirements of those agencies in cleaning up the spill, excavating and disposing soils or other materials contaminated by a spill, and collecting and disposing waste generated during spill cleanup.</li> </ul>	
				<p><b>Mitigation Measure BIO-1d: Stormwater Pollution Prevention Plan (SWPPP).</b> The Project shall adhere to and implement the requirements of the respective</p>	

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				existing SWPPP for the Marathon Martinez Refinery, Avon Marine Terminal and Amorcó Marine Terminal during Project construction. Applicable measures in each SWPPP shall be incorporated into the construction plans by a qualified specialist and implemented prior to construction	
				<p><b>Mitigation Measure BIO-1e: In-water Work Restrictions.</b> The following work restrictions shall be included on all plans that include in-water work, and employed by Marathon and its contractors:</p> <ul style="list-style-type: none"> <li>• To the extent feasible, in-water work shall be performed between 30 minutes after sunrise and 30 minutes before sunset.</li> <li>• In-water work activity shall only occur during the work window specified by the NMFS and CDFW for avoidance of potential impacts to fish species in this region of the San Francisco Bay Estuary, August 1 to November 30. If in-water work outside this time period is required, the work window may be adjusted through coordination with the CDFW, NMFS and USFWS.</li> </ul>	
				<p><b>Mitigation Measure BIO-1f: Nearshore Habitat Disturbance Minimization.</b> The following measures shall be employed by Marathon and its contractors. The measures shall be included as recommended practices incorporated into all construction contracts related to the Project. The number of round trips made by barges during construction shall be limited to the extent feasible. Barge and support vessels shall transit through the shallows at a no-wake-producing speed to minimize disturbance to bottom sediments. Anchoring shall be minimized to the extent possible.</p>	
				<p><b>Mitigation Measure BIO-1g: Demarcation of Limits of Work.</b> Marathon and its contractors shall clearly demarcate the limits of work in the field. All Project-related activity shall be confined to the designated work areas; no entry into adjacent areas shall be allowed by Project personnel. Upon Project completion, material used to mark the work boundary shall be removed.</p>	

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				<p><b>Mitigation Measure BIO-1h: Weed Spread Prevention.</b> Marathon and its contractors shall implement measures to ensure that boots, clothing, vehicles and equipment are free of soils and plant parts prior to entering work areas.</p>	
				<p><b>Mitigation Measure BIO-1i: Preconstruction Focused Soft-Bird's Beak Surveys.</b> Focused surveys for soft-bird's beak shall be conducted by a qualified biologist each year during the appropriate blooming period (June 1 through September 30) prior to construction to confirm its absence. Locations of rare plants in proposed construction areas will be recorded using a GPS unit and flagged for avoidance. A qualified biologist shall monitor construction activities occurring in the vicinity of the flagged plants to ensure that no direct or indirect impacts occur.</p>	
				<p><b>Mitigation Measure BIO-1j: Preconstruction Nesting Bird Surveys.</b> No more than 5 days prior to construction during the nesting bird season (February 1 through September 15), a qualified biologist shall conduct a survey for nesting birds. If work within an area lapses for more than 14 days during the nesting season, the survey shall be repeated. The survey shall encompass all work areas and those areas within a buffer of 250 feet for passerines, 500 feet for small raptors, and 1,000 feet for large raptors. Where accessible, the location of active nests will be recorded using a handheld global-positioning system unit. Should an active nest be discovered, a biological monitor will be required on-Site during construction activities that could cause disturbance of the nest. The biologist may allow work to continue if they determine that the work activity is not likely to cause nest disturbance. The biological monitor shall have the authority to stop work should a nesting bird display signs of agitation. The qualified biologist conducting the nesting surveys should prepare a report that provides details about the nesting outcome and the removal of buffers. This report should be submitted to the County's Department of Conservation and Development</p>	

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				for review and approval prior to the time that buffers are removed.	
				<b>Mitigation Measure BIO-1k: California Ridgway's Rail and California Black Rail Surveys.</b> Prior to construction occurring during the rail nesting season (February 1 through August 31) within 700 feet of suitable rail habitat, surveys shall be conducted for California Ridgway's rail and California black rail in accordance with the USFWS Survey protocol for California Ridgway's rail. Surveys should be initiated between January 15 and February 1. For each survey station, four surveys are to be conducted. Surveys should be spaced at least two weeks apart and should cover the time period from the date of the first survey through the end of March or mid-April. If California Ridgway's or California black rails are detected during the survey, no work within 700 feet of the rail calling centers (identified via compass bearing and distance estimate during surveys) shall occur between February 1 and August 31, unless otherwise approved by USFWS and CDFW.	
	BIO-2	Disturbance or loss of sensitive natural communities or State and Federally protected wetlands	Potentially Significant	<b>Mitigation Measure BIO-2:</b> Implement Mitigation Measure BIO-1a, Mitigation Measure BIO-1b, Mitigation Measure BIO-1c, Mitigation Measure BIO-1g and Mitigation Measure BIO-1h.	Less than Significant
	BIO-3	Interfere with wildlife migratory corridors or nursery sites.	Potentially Significant	<b>Mitigation Measure BIO-3:</b> Implement Mitigation Measure BIO-1a, Mitigation Measure BIO-1b, Mitigation Measure BIO-1c, Mitigation Measure BIO-1e, Mitigation Measure BIO-1g, Mitigation Measure BIO-1h, Mitigation Measure BIO-1j and Mitigation Measure BIO-1k	Less than Significant
	BIO-4	Conflict with any local policies or ordinances protecting biological resources or provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.	Less than Significant	No mitigation required.	Less than significant
	BIO-5	Cause substantial impact to special-status species or sensitive habitat due to increased fill area and bay cover.	Less than Significant	No mitigation required.	Less than significant
	BIO-6	Increase deposition or erosion of sensitive habitats along the vessel path, including marshlands within and adjacent	Less than Significant	No mitigation required.	Less than significant

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		to the lease area, resulting from the resuspension of sediments by calling vessels.			
	BIO-7	Cause injury or behavioral interruptions to aquatic species as a result of noise from increased number of vessels.	Potentially Significant	<p><b>Mitigation Measure BIO-7a: Vessel Strike Minimization.</b> The following mitigation measure shall be implemented during all on-going business operations and shall be included as part of contractual agreement language to ensure that contract vessels are informed of all on-going operational responsibilities. Marathon shall update pre-arrival document materials and instructions sent to tank vessels agents/operators scheduled to arrive at the Marine Terminal with the following information and requests:</p> <ul style="list-style-type: none"> <li>• Available outreach materials regarding the Blue Whales and Blue Skies incentive program.</li> <li>• Whale strike outreach materials and collision reporting from NOAA.</li> <li>• Request extra vigilance by ship crews upon entering the traffic separation scheme shipping lanes approaching San Francisco Bay and departing San Francisco Bay to aid in detection and avoidance of ship strike collisions with whales.</li> <li>• Inform all vessel traffic of vessels 300 gross registered tons or larger to reduce speeds to 10-knots when transiting within the designated Vessel Speed Reduction zones.</li> <li>• Request compliance to the maximum extent feasible (based on vessel safety) with the 10-knot speed reduction zone. Understand and agree that decisions concerning safe navigation and maneuvering of participating vessels remain entirely with ship masters and crew.</li> <li>• Encourage participation in the Blue Whales and Blue Skies incentive program.</li> </ul> <p><b>Mitigation Measure BIO-7b: Sturgeon Action Funding.</b> Marathon Refining and Marketing Company, LLC (Marathon) shall conduct and support the following activities to further the understanding of vessel strike vulnerability of sturgeon in San Francisco, San Pablo, and Suisun Bays and the Carquinez Strait. The support</p>	Less than significant

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				shall be based on criteria that establish Marathon's commensurate share taking into account the increase in vessel calls to the Avon and Amorcó Marine Oil Terminals. Support shall include coordination with CDFW and Research Sturgeon to ensure appropriate messaging on information flyers suitable for display at bait and tackle shops, boat rentals, fuel docks, fishing piers, ferry stations, dockside businesses, etc. to briefly introduce interesting facts about the sturgeon and research being conducted to learn more about its requirements and how the public's observations can inform strategies being developed to improve fisheries habitat within the estuary.	
	BIO-8	Cause significant adverse impacts to the San Francisco Bay Estuary and associated biota as a result of spills.	Potentially Significant	Marathon would be required to update the Refinery's FRP and Spill Prevention, Control, and Countermeasure Plan (SPCC) to demonstrate preparedness to respond to vegetable oil and animal fat spills. However, there are limitations to thorough containment and cleanup of a major oil spill.	Significant and Unavoidable
	BIO-09	Introduce invasive nonindigenous aquatic species to the San Francisco Bay Estuary.	Potentially Significant	Under the terms of the terminal leases with CSLC, Marathon is required to ensure that vessels calling at Avon or Amorcó MOTs are advised of California's Marine Invasive Species Act and submit forms as required by CSLC through the MISP. Mitigation Measure BIO-9b of the Avon FEIR and BIO-7b of the Amorcó FEIR required the refinery's previous owner, Tesoro Refining and Marketing Company, to participate and assist in funding ongoing and future actions related to nonindigenous aquatic species at a level determined through cooperative effort with the MISP agencies.	Significant and Unavoidable
				<b>Mitigation Measure BIO-9a:</b> Marathon Refining and Marketing Company, LLC (Marathon) shall continue to participate and assist in funding ongoing and future actions related to nonindigenous aquatic species (NAS) as described in Mitigation Measure BIO-9B of the Tesoro Avon Marine Oil Terminal Lease Consideration Project Final Environmental Impact Report (FEIR) and Mitigation Measure BIO-7b of the Amorcó Marine Terminal FEIR.	

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				The level of funding shall be revisited through a cooperative effort between California State Lands Commission staff, the DWR, CDFW, and Marathon, and shall be based on criteria that establish Marathon's commensurate share NAS actions costs taking into account the increase in vessel calls to the Avon and Amorcio Marine Oil Terminals.	
<b>3.5 Cultural and Tribal Cultural Resources</b>	CR-1	Potential to cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.	Potentially Significant	<p><b>Mitigation Measure CR-1: Discovery of Unknown Cultural or Archaeological Resources.</b> The following Mitigation Measures shall be implemented during project related ground disturbance, and shall be included on all construction plans:</p> <p>All construction personnel, including operators of equipment involved in grading, or trenching activities will be advised of the need to immediately stop work if they observe any indications of the presence of an unanticipated cultural resource discovery (e.g. wood, stone, foundations, and other structural remains; debris-filled wells or privies; deposits of wood, glass, ceramics). If deposits of prehistoric or historical archaeological materials are encountered during ground disturbance activities, all work within 50 feet of the discovery shall be redirected and a qualified archaeologist, certified by the Society for California Archaeology (SCA) and/or the Society of Professional Archaeology (SOPA), shall be contacted to evaluate the finds and, if necessary, develop appropriate treatment measures in consultation with the County and other appropriate agencies. If the cultural resource is also a tribal cultural resource (TCR) the representative (or consulting) tribe(s) will also require notification and opportunity to consult on the findings.</p> <p>If the deposits are not eligible, avoidance is not necessary. If eligible, deposits will need to be avoided by impacts or such impacts must be mitigated. Upon completion of the archaeological assessment, a report should be prepared documenting the methods, results, and recommendations. The report should be submitted to the Northwest Information Center and appropriate Contra Costa County agencies.</p>	Less than Significant

Table ES-1: Summary of Project Impacts and Mitigation Measures

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				<p>Should human remains be uncovered during grading, trenching, or other on-site excavation(s), earthwork within 30 yards of these materials shall be stopped until the County coroner has had an opportunity to evaluate the significance of the human remains and determine the proper treatment and disposition of the remains. Pursuant to California Health and Safety Code Section 7050.5, if the coroner determines the remains may those of a Native American, the coroner is responsible for contacting the Native American Heritage Commission (NAHC) by telephone within 24 hours. Pursuant to California Public Resources Code Section 5097.98, the NAHC will then determine a Most Likely Descendant (MLD) tribe and contact them. The MLD tribe has 48 hours from the time they are given access to the site to make recommendations to the land owner for treatment and disposition of the ancestor's remains. The land owner shall follow the requirements of Public Resources Code Section 5097.98 for the remains.</p> <p>In the event the Project design changes, and ground disturbance is anticipated beyond the Area of Potential Effect, as it is currently defined by the Cultural Resources Inventory Reports, further surveys shall be conducted in those new areas to assess the presence of cultural resources. Any newly discovered or previously recorded sites within the additional survey areas shall be recorded (or updated) on appropriate Department of Parks and Recreation (DPR) 523-series forms. If avoidance of these cultural resources is not feasible then an evaluation and/or data recovery program shall be drafted and implemented.</p>	
	CR-2	Potential to cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5.	Potentially Significant	<b>Mitigation Measure CR-1:</b> Implement Mitigation Measure CR-1.	Less than Significant
	CR-3	Potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Less than Significant	No mitigation required.	Less than Significant
	CR-4	Potential to disturb any human remains, including those interred outside of formal cemeteries.	Less than Significant	No mitigation required.	Less than Significant

Table ES-1: Summary of Project Impacts and Mitigation Measures

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	TCR-1	Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is 1) listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k); or 2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.	Potentially Significant	Implement Mitigation Measure CR-1.	Less than Significant
<b>3.6 Energy</b>	EN-1	The proposed Project could result in increased energy consumption, but not in large amounts or in a wasteful manner.	Less than Significant	No mitigation required.	Less than Significant
	EN-2	Proposed Project construction or operations would not conflict with adopted energy conservation plans or standards.	Less than Significant	No mitigation required.	Less than Significant
<b>3.7 Geology and Soils</b>	GEO-1	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.	Less than Significant	No mitigation required.	Less than Significant
	GEO-2	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking.	Potentially Significant	<b>Mitigation Measure GEO-2: Submittal of Final Geotechnical Evaluation Report.</b> Prior to issuance of a grading or building permit for the equipment changes associated with the Project, the Applicant shall submit a final geotechnical evaluation report prepared by a licensed engineer, for approval by the Department of Conservation and Development, Peer Review Geologist, along with payment for the peer review fee. The report shall specify final recommendations for seismically and structurally sound installation of new structures, equipment and foundations in accordance with the California Building Code standards in effect at the time the permit application is submitted. Construction drawings submitted with the building permit application shall include appropriate detail to demonstrate	Less than Significant

Table ES-1: Summary of Project Impacts and Mitigation Measures

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				compliance of the Project with the standards of the applicable California Building Code.	
	GEO-3	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving seismic-related ground failure, including liquefaction.	Less than Significant	No mitigation required.	Less than Significant
	GEO-4	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving landslides.	Less than Significant	No mitigation required.	Less than Significant
	GEO-5	Result in substantial soil erosion or the loss of topsoil.	Less than Significant	No mitigation required.	Less than Significant
	GEO-6	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	Potentially Significant	<b>Mitigation Measure GEO-6:</b> Implement Mitigation Measure GEO-2.	Less than Significant
	GEO-7	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	Potentially Significant	<b>Mitigation Measure GEO-7:</b> Implement Mitigation Measure GEO-2.	Less than Significant
	GEO-8	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	No Impact	No mitigation required.	No Impact
	GEO-9	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Less than Significant	No mitigation required.	Less than Significant
<b>3.8 Greenhouse Gas Emissions</b>	GHG-1	Generate GHG emissions that exceed the adopted BAAQMD thresholds.	Less than Significant	No mitigation required.	Less than Significant
	GHG-2	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.	Less than Significant	No mitigation required.	Less than Significant
<b>3.9 Hazards and Hazardous Materials</b>	HAZ-1	Create a hazard to workers, the public and/or the environment through the routine transport, use, and/or disposal of hazardous materials.	Less than Significant (Construction) Potentially Significant (Operation)	<b>Mitigation Measure HAZ-1:</b> The permittee shall comply with mitigation measures as outlined in the Operational Safety/Risk of Accident sections of the EIRs for both Amorcó and Avon MOTs and as incorporated by reference into the leases as regulatory (lease) conditions. These measures include CLSC-established MOTEMS that have set minimum requirements for preventative maintenance, including periodic inspection of all components related to transfer operations pipelines. The permittee shall comply with those requirements, as well as with the CSLC's operational requirements, including Article 5.5 Marine Terminal Oil	Significant and Unavoidable

Table ES-1: Summary of Project Impacts and Mitigation Measures

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				<p>Pipelines 17 (California Code of Regulations, Title 2, Sections 2560-2571). The implementation of the measures, which are discussed in detail in the Avon EIR, are as follows:</p> <ul style="list-style-type: none"> <li>• Installation of Remote Release Systems</li> <li>• Maintaining of Tension Monitoring Systems</li> <li>• Maintaining of Allision Avoidance Systems</li> <li>• Development of a Fire Protection Assessment</li> <li>• Participation in USCG Ports and Waterways Safety Assessment Workshops</li> <li>• Response to any Vessel Spills near the Project</li> </ul>	
	HAZ-2	Create a hazard to workers, the public, and/or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.	Less than Significant	No mitigation required.	Less than Significant
	HAZ-3	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	No Impact	No mitigation required.	No Impact
	HAZ-4	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.	Less than Significant	No mitigation required.	Less than Significant
	HAZ-5	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.	Less than Significant	No mitigation required.	Less than Significant
	HAZ-6	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than Significant	No mitigation required.	Less than Significant
	HAZ-7	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fire.	No Impact	No mitigation required.	No Impact
<b>3.10 Hydrology and Water Quality</b>	HWQ-1	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	Less than Significant (Construction)	MOT lease conditions, contingency planning and required response measures are already being implemented at the Project Site. However, adherence to these protocols and spill response measures is not a guarantee that contaminants will never be released. The probability of a	Significant and Unavoidable

Table ES-1: Summary of Project Impacts and Mitigation Measures

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
			Potentially Significant (Operational)	serious spill would be minimized to the extent feasible with implementation of applicable lease conditions (e.g., MMs OS-1a, OS-1b, OS-1c, OS-4a, OS-4b), but the risk cannot be eliminated, and a large spill could still occur and result in impacts on water quality.	
	HWQ-2	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	No Impact	No mitigation required.	No Impact
	HWQ-3	Substantially alter the existing drainage pattern of area in a manner which would result in substantial erosion or siltation on- or off-site.	Less than Significant	No mitigation required.	Less than Significant
	HWQ-4	Substantially alter the existing drainage pattern of area in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.	Less than Significant	No mitigation required.	Less than Significant
	HWQ-5	Substantially alter the existing drainage pattern of area in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Less than Significant	No mitigation required.	Less than Significant
	HWQ-6	Substantially alter the existing drainage pattern of area in a manner which would impede or redirect flood flows.	Less than Significant	No mitigation required.	Less than Significant
	HWQ-7	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	Less than Significant	No mitigation required.	Less than Significant
	HWQ-8	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than Significant	No mitigation required.	Less than Significant
<b>3.11 Land Use</b>	LU-1	Physically divide an established community.	Less than Significant	No mitigation required.	Less than Significant
	LU-2	Cause significant environmental impact due to conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less than Significant	No mitigation required.	Less than Significant
<b>3.12 Noise</b>	NOI-1	Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Less than Significant	No mitigation required.	Less than Significant

Table ES-1: Summary of Project Impacts and Mitigation Measures

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	NOI-2	Generation of excessive temporary groundborne vibration or groundborne noise levels.	Less than Significant	No mitigation required.	Less than Significant
	NOI-3	Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Less than Significant	No mitigation required.	Less than Significant
	NOI-4	Generation of excessive permanent groundborne vibration or groundborne noise levels.	Less than Significant	No mitigation required.	Less than Significant
	NOI-5	The Project Site is located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and it would expose people residing or working in the project area to excessive noise levels.	Less than significant	No mitigation required.	Less than Significant
<b>3.13 Public Services</b>	PUB-1	Substantial adverse physical impacts associated with the need or provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection.	Less than Significant	No mitigation required.	Less than Significant
	PUB-2	Substantial adverse physical impacts associated with the need or provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection.	Less than Significant	No mitigation required.	Less than Significant
	PUB-3	Substantial adverse physical impacts associated with the need or provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.	Less than Significant	No mitigation required.	Less than Significant
	PUB-4	Substantial adverse physical impacts associated with the need or provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks or other public facilities.	Less than Significant	No mitigation required.	Less than Significant

Table ES-1: Summary of Project Impacts and Mitigation Measures

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<b>3.14 Transportation</b>	TRAN-1	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	Less than Significant	No mitigation required.	Less than Significant
	TRAN-2	Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).	Less than Significant	No mitigation required.	Less than Significant
	TRAN-3	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Less than Significant	No mitigation required.	Less than Significant
	TRAN-4	Result in inadequate emergency access.	Less than Significant	No mitigation required.	Less than Significant
<b>3.15 Utilities and Service Systems</b>	UTIL-1	Need for relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Less than Significant	No mitigation required.	Less than Significant
	UTIL-2	Adequacy of available water supplies to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	Less than Significant	No mitigation required.	Less than Significant
	UTIL-3	Project construction and operations result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	Less than Significant	No mitigation required.	Less than Significant
	UTIL-4	Impact UTIL-4: Generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	Less than Significant	No mitigation required.	Less than Significant

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## Summary of Major Potential Impacts of the Project

The proposed Project could cause potentially significant temporary impacts to special-status species during construction or as a result of the introduction of invasive nonindigenous aquatic species attached to marine vessels. Potentially significant hazardous materials and water quality impacts are also anticipated as a result of spills of feedstocks or refined products. While construction impacts of the Project would be temporary, and mitigation measures are identified that could reduce these impacts to less than significant, operational impacts to biological resources, hazards, and water quality would remain significant even with mitigation.

The Project would result in an overall reduction in air emissions from the Refinery due to the reduction in the volume of feedstock refined at the facility. However, cumulative criteria pollutant health risk (i.e., emissions from the Project plus other development in the vicinity of the Project Site) would continue to exceed regional air quality thresholds of significance, and this impact would remain cumulatively significant and unavoidable.

## ALTERNATIVES TO THE PROPOSED PROJECT

CEQA requires consideration of a range of reasonable alternatives to the project or project location that: (1) could feasibly attain most of the basic project objectives; and (2) would avoid or substantially lessen any of the significant impacts of the proposed project. The following is a summary of alternatives analyzed in this EIR. A more detailed discussion is included in Chapter 5.0, Alternatives.

### No Project Alternative

Under the No Project scenario, the proposed Renewable Fuels Project would not proceed. Instead, Refinery operations would resume as described in Section 2.4 of this EIR. Current permits and entitlements for crude oil refining would remain unmodified and in effect, and the Refinery would operate under those current permits and entitlements. The Refinery's operations are currently permitted by the Bay Area Air Quality Management District (BAAQMD) to have a crude oil-refining capacity of 161,000 barrels per day (bpd) maximum. For the 5 years prior to submittal of land use and air permit applications for the Project, actual Refinery throughput averaged approximately 121,000 bpd.

### Reduced Renewable Feedstock Throughput Alternative

This alternative would involve conversion of the Refinery from a crude oil processing facility to a facility for the refining of renewable feedstock at a reduced capacity of 23,000 bpd maximum, the interim throughput under the proposed Refinery conversion process.

### Green Hydrogen Alternative

In this alternative, "green" hydrogen would be used in the renewable fuels refining process. In contrast to the existing steam methane reforming technology that separates hydrogen atoms from hydrocarbon fuel molecules using the Refinery's existing infrastructure, green hydrogen uses electricity from renewable energy sources to produce hydrogen through the electrolysis of water molecules into its constituent elements of hydrogen and oxygen. Under this alternative, the proposed throughput would not change from the proposed Project's throughput of 48,000 bpd of

renewable feedstock, though green hydrogen from water electrolysis would be used in the refining process instead of hydrogen from the steam methane reforming process.

### Environmentally Superior Alternative

A comparison of the potential environmental impacts of the proposed Project, No Project Alternative, Reduced Renewable Feedstock Throughput Alternative, and Green Hydrogen Alternative was conducted to identify an environmentally superior alternative. Because it would not result in any impacts that would be greater than the proposed Project, and in many cases would result in reduced impacts compared to the proposed Project, the Reduced Renewable Feedstock Throughput Alternative is the environmentally superior alternative. The Reduced Renewable Feedstock Throughput Alternative, however, would generate fewer jobs and result in a lower volume of renewable fuels being brought to the market to support the State's renewable energy goals, and would not achieve Project objectives as well as the proposed Project.

### KNOWN AREAS OF CONTROVERSY OR UNRESOLVED ISSUES

CEQA requires a statement of issues to be resolved and areas of known controversy. The following issues were identified by resource agencies and interested parties as topics of particular interest during the EIR scoping process.

Scoping Topic	Discussion in EIR Section
Air quality and greenhouse gas emissions: Provide an analysis of criteria pollutants, toxic air contaminants, odors and health impacts resulting from changes in Project and marine, rail or truck traffic.	Section 3.3, Air Quality  Section 3.8, Greenhouse Gases
Community health risk: Estimate and evaluate the potential health risk to sensitive populations near the Project Site from toxic air contaminants and fine particulate matter from Project construction and operations.	Section 3.3, Air Quality
Sea level rise: Due to proximity of the Project Site to the Suisun Bay and Carquinez Strait shorelines and local creeks, sea level rise and flooding could present vulnerabilities to public or structural safety.	Section 3.10, Hydrology and Water Quality
Water quality: Construction and operation of the Project, including marine transportation of feedstock and fuels, effluent discharges and stormwater runoff from new and repurposed facilities, could affect water quality at and around the Project Site.	Section 3.10, Hydrology and Water Quality
Hazardous materials: While renewable feedstocks to be used for the Project are deemed non-hazardous,	Section 3.9, Hazards and

<b>Scoping Topic</b>	<b>Discussion in EIR Section</b>
end products such as diesel, naphtha, propane and potentially aviation jet fuel may have environmental risks during routine use, transportation or upset.	Hazardous Materials
Feedstock production: Use of renewable feedstocks for the Project could induce pressure on existing agricultural producers to increase supply, with cascading effects on food prices, decreased biodiversity, and increased deforestation and monoculture.	Chapter 6, Other CEQA Considerations

Written and spoken comments received during the public comment period on the notice of preparation of this EIR are included in Appendix NOP.

# 1 INTRODUCTION

This chapter provides a brief introduction to the Martinez Refinery Renewable Fuels Project (Project) and summarizes the process for evaluation of potential environmental impacts thereof. Chapter 2, Project Description, provides a detailed description of the proposed Project, including existing conditions and proposed physical and operational changes to the Marathon Martinez Refinery (Refinery).

## 1.1 PROJECT OVERVIEW

The Martinez Refinery Renewable Fuels Project is a request by Marathon Petroleum Corporation (Marathon or Applicant) for entitlements to modify operations of their existing refinery at 150 Solano Way, in unincorporated lands east of the city of Martinez, east of Pacheco Creek and south of Suisun Bay. The request was submitted to the Contra Costa County Department of Conservation and Development, Current Planning Division for a land use permit approval (County File No. CDLP20-02046), and more specifically, involves equipment modifications and repurposing of the existing refinery facility to discontinue production of fossil fuels and switch to production of fuels from renewable sources including rendered fats, soybean and corn oil and other cooking or vegetable oils.

## 1.2 PROJECT OBJECTIVES

The Applicant has identified the following objectives for the Project:

- Repurpose the Marathon Martinez Refinery to a renewable fuels production facility.
- Eliminate the refining of crude oil at the Martinez Refinery while creating high quality jobs.
- Provide renewable fuels to allow California to achieve significant progress towards meeting its renewable energy goals.
- Produce renewable fuels that significantly reduce the lifecycle generation of greenhouse gas emissions, as well as other criteria pollutants including particulate matter.
- Reduce emissions from mobile sources by providing cleaner burning fuels.
- Repurpose/reuse existing critical infrastructure, to the extent feasible.

## 1.3 APPLICABILITY OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

The requested physical and operational changes associated with the proposed Project constitute a “project” as defined by the California Environmental Quality Act (“CEQA,” Public Resources Code Section 21000 *et seq.*), the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 *et seq.*), and the Contra Costa County Guidelines for Administering CEQA (“County CEQA Guidelines,” Contra Costa County Resolution No. 2010/402). The Project also requires discretionary action by Contra Costa County (County), wherein the County has the authority to use its judgment in deciding whether or how to carry out or approve the Project. Therefore, the Project is subject to the requirements of CEQA. For the purposes of CEQA, the term “project” refers to the whole of an action that has the potential to result in a direct physical

change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378).

As the public agency with primary land use authority over the proposed Project, the County is the “lead agency” overseeing and administering the CEQA environmental review process. The County has prepared this Environmental Impact Report (EIR) pursuant to CEQA, the State CEQA Guidelines, and the County CEQA Guidelines to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed Project.

#### **1.4 PURPOSE OF THE EIR**

As set forth in various provisions of the CEQA Statute (e.g., Section 21080), before deciding whether to approve a project, public agencies must consider the potentially significant environmental impacts of the project. Pursuant to CEQA Guidelines Section 15064, if any aspect of the proposed project, either individually or cumulatively, may cause a significant effect on the environment which cannot be mitigated to less-than-significant levels, regardless of whether the overall effect of the project is adverse or beneficial, an EIR must be prepared. The EIR must describe the project’s potentially significant environmental effects, identify alternatives to the project, and identify measures to mitigate or avoid adverse impacts that would result from implementation of the project.

This EIR is a factual document, prepared in conformance with CEQA, and written to make the public and decision-makers aware of any potential environmental consequences of the proposed Project. This EIR includes a description of the Project, its environmental context, and an evaluation of the potential environmental impacts of the Project compared to an existing condition or baseline. State CEQA Guidelines section 15125, subdivision (a), states:

*An EIR must include a description of the physical environmental conditions in the vicinity of the project. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to provide an understanding of the significant effects of the proposed project and its alternatives. The purpose of this requirement is to give the public and decision makers the most accurate and understandable picture practically possible of the project's likely near-term and long-term impacts.*

The California Supreme Court confirmed that, while conditions at the time of the notice of preparation “normally” constitute the baseline for the environmental analysis under CEQA, the lead agency has flexibility in defining the appropriate baseline (*Communities for a Better Environment v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 328). Therefore, State CEQA Guidelines allow a lead agency some leeway in its determination of the baseline by stating that the environmental setting at the time the notice of preparation is published will “generally” constitute the baseline physical conditions against which the impacts of a project are evaluated; however, historic or projected future conditions may also form the baseline for analysis if those approaches are supported by substantial evidence. In some instances, as here, where an existing operation is present, and the level of that operation can vary substantially from

year to year, a lead agency may opt to consider a more representative baseline, such as an average level of operations over a period of years to characterize that existing operation.

For any adverse environmental impact of the Project that is considered to be potentially significant when compared to the baseline condition, this EIR identifies mitigation measures to avoid or reduce the potentially significant adverse impact to less-than-significant levels. This EIR also identifies and evaluates alternative scenarios to the proposed Project, including a “no project” scenario wherein the Refinery would continue to operate under current entitlements, as well as scenarios wherein the Refinery facility is decommissioned or the Project is implemented but with a modified scope. Cumulative impacts of the Project plus other projects planned to occur in the vicinity of the Refinery are also discussed.

Before any action can be taken to approve the proposed Project, the County must make the necessary findings and certify that the County has reviewed and considered the information in the EIR, that the EIR has been completed in conformity with the requirements of CEQA, and that the EIR reflects the County’s independent judgment and analysis. Certification of an EIR by the decision-making body does not constitute approval or denial of the Project.

Should the Project be approved, the County and other public agencies with permitting authority over the Project must impose mitigation measures as conditions or require Project modifications to reduce or avoid the significant adverse impacts of the Project on the environment. The Applicant may also choose to modify the Project to mitigate or avoid potentially significant adverse environmental impacts. The County and permitting agencies may only approve the Project with significant adverse environmental impacts that are not mitigated if the agency finds that specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make imposition of mitigation measures or Project alternatives infeasible (CEQA Guidelines Section 15091).

## **1.5 USE OF THIS EIR BY RESPONSIBLE AGENCIES**

In addition to land use permit approval by the County, the Project requires permits from other federal, state and local agencies including the United States Army Corps of Engineers, Bay Area Air Quality Management District, San Francisco Bay Conservation and Development Commission, San Francisco Bay Regional Water Quality Control Board and California State Lands Commission. California state and regional agencies are considered to be responsible agencies under CEQA and must comply with CEQA by considering the environmental impact report prepared by the lead agency. However, responsible agencies must each reach their own conclusions on whether or how to approve their respective permits for the Project (CEQA Guidelines Section 15096).

The County as Lead Agency must certify the EIR prior to taking action on the requested land use permit. Following these actions by the Lead Agency, the Project requires permits from other federal, state and local agencies including the following agencies.

### **Local**

- Contra Costa County Department of Conservation and Development
  - Certification of Environmental Impact Report

- Land Use Approval
- Mitigation Monitoring Program
- Grading and Building Plans
- Fire Safety Plans
- San Francisco Bay Conservation and Development Commission (BCDC)
  - Development in the San Francisco Bay or within the 100-foot shoreline band
- Bay Air Quality Management District (BAAQMD)
  - Authority to Construct / Permit to Operate
  - Title V Permit Amendment

### State

- California State Lands Commission
  - Lease modification to accommodate changes to terminal uses
- Regional Water Quality Control Board (RWQCB)
  - NPDES Permit
  - Section 401 Water Quality Certification

### Federal

- National Marine Fisheries Service (NMFS)
  - U.S Army Corps of Engineers Section 7 Consultation
    - Amorco Marine Terminal
- U.S. Army Corps of Engineers
  - Section 10, Rivers and Harbors Act
    - Avon and Amorco Marine Terminals
  - Section 404, Clean Water Act
    - Amorco Marine Terminal

## 1.6 OPPORTUNITIES FOR PUBLIC COMMENT

### *Notice of Preparation*

The County released a Notice of Preparation (NOP) for this Project on February 18, 2021 (see Appendix NOP-1). The NOP provided notification to interested parties of the County's intent to prepare an EIR to evaluate the potential environmental impacts of the proposed Project. In accordance with State and County CEQA Guidelines Section 15082, the NOP contained a brief description of the Project and its location, as well as a list of environmental resource areas that would potentially be affected by the Project and that would be discussed in the EIR. The NOP was posted on the County website, and copies of the NOP were filed with the State Clearinghouse and the County Clerk; were sent via certified mailed or email to public agencies with permitting authority over the Project or who hold jurisdiction over natural resources that might be affected by the Project; and were mailed to interested parties requesting such notice. Copies of the NOP were also mailed via first class mail to owners of property within 300 feet of the boundaries of the Project Site.

The NOP invited interested individuals, organizations and agencies to provide comments on the scope of the environmental issues to be evaluated in the EIR. Written comments could be submitted to County staff until 5:00 p.m. on March 22, 2021. The County also accepted spoken

comments in response to the NOP, at a public hearing before the County Zoning Administrator held on March 15, 2021. The date of and means to participate virtually in the scoping public hearing were included in the NOP. The written NOP comments and the transcription of the NOP scoping public hearing are included in this EIR as Appendices NOP-2 through NOP-5.

### ***Draft EIR***

The Draft EIR for this Project will be available for a public comment period consisting of no fewer than 45 calendar days. During this public comment period, public agencies, members of the public and any other interested parties may review the Draft EIR and provide written comments to the County on the analysis contained herein. Following the close of the public comment period on the Draft EIR, the County will prepare a Final EIR, which will consist of the Draft EIR, comments received on the Draft EIR, written responses to the environmental issues raised in those comments, and revisions to the Draft EIR that may be warranted in response to comments received.

No fewer than 10 days following publication of the Final EIR, the County Planning Commission will hold at least one public hearing to consider whether to certify the Final EIR for the Project and to consider the merits of the Project and whether to approve the requested use permit. As described above, the County must certify as to the adequacy of the Final EIR before it can approve the proposed Project; certification of the EIR does not in itself signify approval or denial of the Project.

## **1.7 ORGANIZATION OF THE EIR**

In addition to this Introduction, the EIR contains the following sections.

- **Chapter 2 – Project Description** describes the proposed Project, its location and facilities, an overview of its operation, and schedule.
- **Chapter 3 – Environmental Impact Analysis** describes existing environmental conditions within issue areas, Project-specific impacts and associated mitigation measures, and the reference materials used to prepare the analysis.
- **Chapter 4 – Cumulative Impacts** describes the cumulative environmental impacts of the proposed Project when combined with other projects located in the vicinity of the Project Site and lists the projects considered in the evaluation of cumulative impacts.
- **Chapter 5 – Alternatives** describes the alternatives to the Project carried forward for analysis and the alternatives that were considered but eliminated from detailed evaluation.
- **Chapter 6 – Other CEQA Considerations** addresses other required CEQA elements, including significant irreversible effects and evaluation of growth-inducing impacts of the Project.
- **Chapter 7 – List of Preparers** presents information on the individuals who prepared the EIR and their qualifications.