APPENDIX N Vallejo Marine Terminal/ORCEM Mitigation Monitoring and Reporting Program

California Public Resources Code Section 21081.6 requires that, upon certification of an EIR, "the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation."

This chapter contains the mitigation monitoring and reporting program (MMRP) that has been developed for the Vallejo Marine Terminal and Orcem Project (project or proposed project). The applicant is defined as Vallejo Marine Terminal and Orcem. This MMRP has been developed in compliance with Public Resources Code Section 21081.6 and Section 15097 of the CEQA Guidelines. The mitigation measures in the table are coded by alphanumeric identification consistent with the EIR and the corresponding impact requiring mitigation is also noted (also see the Executive Summary for a clear correlation between impact and mitigation measure). The following items are identified in Table 1 for each mitigation measure:

- **Mitigation Monitoring.** This section of the MMRP lists the stage of the proposed project during which the mitigation measure would be implemented and indicates who is responsible for implementing the mitigation measure (i.e., the "implementing party"). It also lists the agency that is responsible for ensuring that the mitigation measure is implemented and that it is implemented properly.
- **Reporting.** This section of the MMRP provides a location for the implementing party and/or enforcing agency to make notes and to record their initials and the compliance date for each mitigation measure.

The City of Vallejo will adopt this MMRP, and use it to manage and monitor the success of mitigation measures during construction and over the life of the project, should the City choose to approve the project. As described below, monitoring is funded by the applicant with technical experts under contract with City of Vallejo. This contracting process could be subject to administrative fees. It should be noted that at any time the operator may substitute equipment or methods that will better control or reduce an impact (i.e., with better emission control technology) with the prior approval of the City.

	N	litigation Monitor	ing	Re	eporting	
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
	Aesthetics	5				
MM-3.1-1: (Applicable to Impact 3.1.1) The final design of project lighting will be such that all permanent lighting and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of project facilities, vicinity, and nighttime sky is minimized. Final lighting plans consisting of cut sheets and manufacturer specifications for the VMT and Orcem projects shall be submitted to and reviewed by the City of Vallejo during the Site Development Review process and shall be approved by the City prior to issuance of a building permit. Lighting shall be designed so exterior light fixtures are warm lights (around 3000 K), hooded, with lights directed downward or toward the area to be illuminated, so that backscatter of the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the project boundary. All lighting shall be of minimum necessary brightness consistent with worker safety. High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied. The plans shall also demonstrate that the use of reflective exterior materials is minimized and that proposed reflective material would not create additional daytime or nighttime glare. Measures identified in the final lighting plans shall be incorporated into construction plans and implemented by the construction contractor. The final approved cut sheets and manufacturer specifications shall be incorporated into the building permit plans.	Project planning and design	Project applicant	Approval of Lighting Plan by City of Vallejo Planning Division			
	Air Quality	/				
MM-3.2-1: (Applicable to Impact 3.2.2 and 3.2.3) The proposed project will use 100% 2010 or newer model year heavy duty diesel trucks at the start of facility operations. A Fleet and Equipment Management Plan shall be incorporated to implement newer and lower-emission technologies for trucks, front loaders, and other powered equipment. The Management Plan shall	Operation	Project applicant to provide information on trucks using	City of Vallejo Planning Division and Public Works Department			

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	N	Mitigation Monitoring			eporting	
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
 incorporate the current emission factors by California Air Resources Board (CARB) per regulatory and update requirements by 2025. The Management Plan shall be provided on an annual basis to the City for review and approval. The City shall contract with a third party to review and monitor. MM-3.2-2: (Applicable to Impact 3.2.3 and 3.2-6) The following shall be implemented: Once vessel calls reach 16 per year, compressed natural gas (CNG) fuel shall be used in the following: Orcem and VMT front end loaders and Orcem excavator. All other equipment (i.e., Orcem conveyors and hoppers, VMT forklifts) shall use B20 fuel. Once vessel calls reach 30 per year, the following equipment shall be electrified: Orcem conveyors and hoppers and VMT forklifts. Orcem and VMT front end loaders and OVMT front end loaders and Orcem excavator shall continue to use CNG per MM-3.2-1 	Operation	Party monitor funded by applicant and under contract with City of Vallejo. Project applicant to provide quarterly reports on ship activity and equipment to Monitor funded by applicant and under contract with City of Vallejo.	Agency City of Vallejo Planning Division	Comments	Date	Initials
shall apply plus 80% of all ship calls shall use shore-side power for auxiliary engines while at berth or use an alternative, CARB-certified capture and control emission technology. At the time of this evaluation, two such systems had been approved by CARB: Advanced Cleanup Technologies' Advanced Marine Emissions Control System (AMECS) and Clean Air Engineering's Marine Exhau st Treatment System (CAEM). Vessel calls per year shall mean the total number of vessel calls in a calendar year, not the average number of annual vessel calls from the start of the project. MM-3.2-3: (Applicable to Impacts 3.2-4 and 3.2-6) The highest available U.S. Environmental Protection Agency (EPA) tier off-road equipment engines shall be purchased or leased at the time of equipment acquisition. The potential for purchase of electric off-road equipment shall	Operation	Project applicant to provide information	City of Vallejo Planning Division			

Table 1	
Mitigation Monitoring and Reporting Progra	m

	Mitigation Monitoring Reporti			eporting		
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
be evaluated at the time of purchase or lease and provided to the lead agency under the MMRP. It is not anticipated that portable diesel generators will be used during routine activities. Portable diesel generators may be used during the initial phase of construction until Pacific Gas & Electric (PG&E) completes new electric service installation. Portable diesel generators may be used during unanticipated events or repairs. If such events arise, diesel generators shall be registered under the California Air Resources Board's (CARB's) Portable Equipment Registration Program.		verifying equipment used is consistent with this requirement to a Monitor funded by applicant and under contract with City of Vallejo. Plan approved by BAAQMD.				
	Biological Reso	ources				11
MM-3.3-1: (Applicable to Impact 3.3-1) Should construction activities begin during the nesting season (February 15 through August 31), a qualified biologist shall conduct appropriate pre-construction surveys for any raptor or other nesting migratory bird nests within or immediately adjacent to the project site no more than 30 days before any construction activity commences. The pre-construction surveys shall follow accepted survey protocols for nesting birds. The purpose of the surveys shall be to determine if active nests of special-status birds or migratory birds are present in the disturbance zone or within 500 feet of the disturbance zone boundary. If active nests are found, the biologist shall consult with the California Department of Fish and Wildlife (CDFW) to determine the appropriate buffer depending upon the species. Limits of construction to avoid impacts to an active nest during construction activities shall be established in the field with flagging, fencing, or other appropriate barriers and construction personnel shall be instructed on the sensitivity of nest	Prior to issuance of grading permits; during any type and period of construction	Contractor/ builder; qualified biologist funded by the applicant and under contract to the City of Vallejo	City of Vallejo Planning Division, CDFW			

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Mitigation Monitoring and Reporting Program

	N	litigation Monitori	ing	Re	eporting	
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
areas. The qualified biologist shall serve as a construction monitor during those periods when construction activities are to occur near active nest areas to avoid inadvertent impacts to these nests. If construction activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than 7 days elapse between the survey and ground- disturbing activities. If an osprey nest within the project footprint requires removal, it shall be removed outside of the nesting season (September 1 through February 14) or when all young of the year have fledged, as determined by the qualified biologist in consultation with CDFW. If alternative nesting sites are not available within 500 feet of a removed raptor nest, the applicant shall determine, with input from CDFW, location and feasibility of constructing of an artificial nesting platform in the vicinity.						
MM-3.3-2: (Applicable to Impact 3.3-2) Within 6 months and no earlier than 30 days prior to initiation of construction activities, or such other period as may be approved in writing by CDFW, a habitat assessment shall be conducted by a qualified biologist, approved by the CDFW, to determine if suitable bat habitat or active roosts of Townsend's big -eared bat are present on or within 300 feet of the construction area. Surveys shall include the structure(s) planned for removal. If Townsend's big - eared bat habitat is present or it is detected roosting in any of the sites planned for removal, the project applicant shall consult with the CDFW to develop a bat avoidance and protection plan. The avoidance and protection plan will identify specific work windows and humane eviction methods that may avoid sensitive life stages including hibernation and active maternity colonies, appropriate disturbance buffers, and identify appropriate additional avoidance and minimization measures, if applicable. Under no circumstance shall an active roost be directly disturbed, and construction within 300 feet shall be postponed or halted, until the roost is naturally vacated, as determined by a qualified biologist. If bats do not vacate the roost voluntarily, and the roost site must be	Prior to issuance of grading permits; during any type or period of construction	Construction Contractor/ builder; qualified biologist funded by the applicant and under contract to the City of Vallejo	City of Vallejo Planning Division, CDFW			

Table 1
Mitigation Monitoring and Reporting Program

	Mitigation Monitoring Reporting			eporting		
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
removed, the project applicant shall implement humane eviction methods in accordance with the avoidance and protection plan developed in consultation with CDFW and secure any necessary permit for incidental take of the bat.						
 MM-3.3-3: (Applicable to Impact 3.3-3) Creosote Piling Removal Plan: Prior to removal of any pilings from the VMT Site, VMT shall develop a Piling Removal Plan that begins with an inventory of all existing pilings at the wharf, documents their individual condition, and suitability for removal using Best Management Practices (BMPs). The Plan shall address, but not be limited to the following: Use of vibratory hammers (timbers jaws) as the primary method of removal for all wood pilings whose wood cores have not rotted away, making use of a vibratory hammer impracticable. If use of a vibratory hammer is not practicable for more than 20% of the pilings, the applicant shall provide verifiable documentation for which piles cannot be removed using a vibratory hammer. A demonstration effort may be required to validate the applicant's justification for not being able to use vibratory removal equipment. Use of direct pull with a cable or chain and crane to remove pilings. Other feasible methods that remove the pilings in their entirety or with as little shredding of the pilings as possible. Use of excavators to remove deteriorated creosote wood pilings shall only be used where it would be ineffective to use vibratory hammers or other cited methods. Use of a floating boom, designed for deployment in high energy environments. The floating boom shall be used during all piling removal as well as dredging activities if excavators are needed to remove the 	Prior to the issuance of demolition permits; during construction	Construction Contractor/ Project applicant: Monitor funded by applicant and under contract with City of Vallejo to approve plan and to monitor implementation of the plan.	City of Vallejo Planning Division, BCDC			

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Mitigation Monitoring and Reporting Program

	Mitigation Monitoring Reporting			eporting		
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
 wood pilings, leaving sections of the pilings in the Bay sediments which would be removed during dredging. Proper use and deployment of boom anchors to ensure that the boom remains open and recovers all floating debris, especially during removal of the outer rows of pilings. Regular removal of all collected debris within the boom on a regular schedule (minimum hourly). The boom shall be cleaned of all debris at the end of the day prior to shut down. Use of a skiff or chase boat to recover any floating debris that falls outside or escapes the containment boom. Proper onshore retention and disposal of creosote wood pilings and debris and the proper disposal of all pilings and debris. This plan shall conform to all U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), Bay Conservation and Development Commission (BCDC), and City of Vallejo permit conditions and be reviewed and approved by the City of Vallejo and a third-party independent environmental mitigation monitor. 						
MM-3.3-4: (Applicable to Impact 3.3-4 and 3.3-9 and 3.3-10) Construction/Deconstruction Pollution Prevention Plan: Prior to any deconstruction of the existing wharf, removal of any pilings, removal or burial of existing shoreline armoring/riprap, and construction of the new wharf, VMT shall prepare and implement a Construction/Deconstruction Pollution Prevention Plan. This plan shall detail all steps to be taken, including selection of equipment, operational procedures, on-site monitors, etc. that will be employed to ensure that no construction or deconstruction debris is accidentally deposited or remains in Napa River or Bay–Delta waters and therein pose a threat to special-status fish species, marine mammals, and any Bay–Delta ecosystems. This plan shall conform to all USACE, RWQCB, BCDC, and City of Vallejo permit conditions and be reviewed and approved by the City of Vallejo and a	Prior to issuance of demolition permits; during construction	Construction Contractor/ Project Applicant; Monitor funded by applicant and under contract with City of Vallejo to approve plan and monitor.	City of Vallejo Planning Division and Public Works Department/ BCDC/U.S. Army Corps			

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	N	litigation Monitori	on Monitoring Reporting		eporting	
	Implementing	Implementing	Enforcing			
Mitigation Measure	Period	Party	Agency	Comments	Date	Initials
third-party independent environmental mitigation monitor. The plan shall		implementation				
include but not be limited to:		of the plan.				
• Training of all personnel engaged in construction/deconstruction						
activities as to the importance of preventing any materials, especially						
hydrocarbon containing materials from entering the water.						
• Measures to be implemented to prevent foreign materials (e.g.,						
wood scraps, wood preservatives, fuels, lubricating oils, hydraulic						
fluids, other chemicals, etc.) from entering the Napa River or other						
Bay–Delta waters. This requirement shall include, but not be limited to:						
 Installation of secondary containment around all vehicle 						
fueling and servicing locations on site.						
 Abundant on-site closable trash containers in which all 						
packaging materials and trash can be placed. Frequent						
removal and replacement of all trash containers shall						
occur to ensure that adequate empty containers are on						
site at all times.						
• Provision of labeled and separate containers for different						
types of recyclable materials (metals, plastic, other) and						
trash (hazardous and non-hazardous).						
• Effective on-site stormwater containment during all						
construction and deconstruction activities that prevents						
any on-site water from reaching Bay and River waters.						
 All equipment and materials shall be temporarily or permanantly stand as allocad a sufficient distance surger 						
permanently stored or placed a sufficient distance away from the waterfront to prevent accidental releases of fuels,						
lubricants, fluids, packaging, etc. from quickly reaching the						
Napa River before corrective actions can be implemented.						
 For any work on or beneath fixed decking, heavy-duty mesh 						
containment netting or other engineering approach shall be						

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	Mitigation Monitoring Reporting					
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
 maintained below all work areas where construction discards or other debris could enter the water. A floating containment boom, netting, or functional equivalent shall be placed around all active portions of a construction/deconstruction site where any floating debris could enter the water. Similar containment shall be placed around any locations where creosote wood pilings are being removed. Deployment anchors shall be used with all booms to ensure that the boom remains open and capable of collecting any floating debris. All floating booms or similar containment devices used to collect floating debris as well as any temporary decking or netting placed under overwater structures shall be cleaned daily or more frequently if significant debris is being collected. During active creosote piling removal, the boom shall be cleaned hourly of any collected debris. In addition to providing booming, a small, motored skiff/chase boat shall be on site to chase and recover any floating debris that escapes the containment booming. Use of a grizzly screen on the dredge spoil barges during all dredging activity to separate any pieces of creosote pilings removed from the Bay floor that were broken off below the seafloor during removal. Adequate spill prevention measures shall be in place to prevent the transfer of any hydrocarbon materials from entering the water while equipment is being used during construction and deconstruction, as well as when being serviced and/or parked. Provisions shall be made to ensure that no external wrapping, internal packing materials, strapping, pallets, boxes, crates, drums, or other associated waste material from staged on-site construction materials can enter the Napa River or Bay–Delta waters. 						

Table 1
Mitigation Monitoring and Reporting Program

	Mitigation Monitoring Reporting			eporting		
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
 MM-3.3-5: (Applicable to Impact 3.3-5) Impact Hammer Pile Driving Noise Reduction for Protection of Fish: Prior to the start of construction, VMT shall develop a National Oceanic and Atmospheric Administration Marine Fisheries Service (NOAA) Fisheries-approved sound attenuation reduction and monitoring plan. This plan shall provide information on the final design of the new wharf, the effects on dolphins, and piling installations, detailing that the minimum number, size, and material for all pilings is being used to meet project engineering requirements as well as generate the lowest levels of underwater noise possible. The plan shall also detail sound attenuation system, detail methods used to monitor and verify sound levels during pile driving activities, and all BMPs to be taken to reduce impact hammer pile-driving sound in the marine environment to an intensity level of less than 183 decibels (dB). The sound monitoring results shall be made available to the NOAA Fisheries and the CDFW. The plan shall incorporate but not be limited to the following BMPs: All impact pile driving for 24-inch concrete and 30-inch steel pilings, shall be conducted in strict accordance with the Long-Term Management Strategy (LTMS) work windows, during which periods the presence of special-status species in the project site is expected to be minimal. VMT shall make every effort possible to restrict pile driving activities during approved LTMS work windows. VMT shall consult with both NOAA Fisheries and CDFW concerning the potential for take of special-status species as a result of pile driving activities and obtain incidental take authorization from NOAA Fisheries and/or CDFW, as necessary and/or required based on agency consultations, to address potential impacts on delta and longfin smelt, Sacramento splittail, Chinook salmon, steelhead trout, and green sturgeon, and to 	Prior to issuance of building permits; during construction	Project applicant: Monitor funded by applicant and under contract with City of Vallejo to approve plan and monitor its implementation . NOAA Fisheries to approve plan.	City of Vallejo Planning and Building Division, CDFW, NOAA Fisheries			

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	Mitigation Monitoring Reporting					
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
 implement all requested actions included in the incidental take permits to avoid impacts. Steel sheet pile will be installed using vibratory hammers and the use of impact hammers kept to the bare minimum. If exceedance of noise thresholds established and approved by NOAA Fisheries occurs, a contingency plan using bubble curtains or an air barrier will be implemented to attenuate sound levels to below thresholds. The hammer will be cushioned using a minimum 12-inch-thick wood cushion block during all impact hammer pile driving operations. Cushion blocks will be replaced frequently to maintain maximum sound reduction. Other BMPs will be implemented as appropriate to reduce underwater noise levels to acceptable levels. 						
 MM-3.3-6: (Applicable to Impact 3.3-6) Pile Driving Noise Reduction for Protection of Marine Mammals: As part of the NOAA Fisheries-approved sound attenuation-monitoring plan required in MM-3.3-5, VMT shall take actions in addition to those listed in MM-3.3-5 to reduce the effect of underwater noise transmission on marine mammals. These actions shall include at a minimum: A 1,600-foot (500-meter) safety zone shall be established and maintained around the sound source, for the protection of marine mammals in the event that sound levels are unknown or cannot be adequately predicted. Work activities shall be halted when a marine mammal enters the 1,600-foot (500-meter) safety zone and shall cease until the mammal has been gone from the area for a minimum of 15 minutes. A "soft start" technique shall be employed in all pile driving, giving marine mammals an opportunity to vacate the area. 	During construction	Monitor funded by applicant and under contract with City of Vallejo; qualified biologist approved by NOAA.	City of Vallejo Planning Division, NOAA Fisheries, paid by project applicant			

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Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
 Sound levels below 90 A-weighted decibels (dBA) shall be maintained in air when pinnipeds (seals and sea lions) are present. A NOAA Fisheries-approved biological monitor will conduct daily surveys before and during impact hammer pile driving to inspect the work zone and adjacent Bay waters for marine mammals. The monitor will be present as specified by NOAA Fisheries during the impact pile-driving phases of construction. 						
 MM-3.3-7: (Applicable to Impact 3.3-7) Wharf Lighting: As described in MM-3.1-1, VMT project lighting shall include wharf lighting that minimizes to the maximum extent practicable and with regard to operational and personnel safety, artificial lighting installed on and adjacent to the VMT wharf. This plan shall include but not be limited to: Use of fully shielded, downward casing, low-voltage, sodium, LED, or non-yellow-red spectrum lights that are well shielded to restrict the transmittance of artificial light over the water. Restriction of artificial lighting to those areas of the wharf and adjacent staging areas that require lighting. Directing all wharf and near wharf lighting to illuminate only the wharf and ground and not adjacent Napa River waters or the sky. Approved cut sheets and specifications in compliance with a photometric plan shall be incorporated into the Building Permit and Construction Plans. 	Operation	Project Applicant. Lighting plan to be approved by a consultant paid by the applicant and under contract to the City of Vallejo, Consultant to review lighting after installation to ensure conformance with the mitigation.	City of Vallejo Planning Division and Building Division			
MM-3.3-9: (Applicable to Impact 3.3-11) Invasive Marine Species Control: Prior to any in-water deconstruction activities at the VMT Site, VMT shall develop and implement an Invasive Species Control Plan. The plan shall be prepared in consultation with the RWQCB, the U.S. Coast	Prior to and during Construction	Construction Contractor/ Project Applicant. Plan	City of Vallejo Planning Division,			

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	Mitigation Monitoring Reporting					
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
 Guard, and California State Lands Commission Marine Invasive Species Program personnel. Provisions of the plan shall include but not be limited to the following: Environmental training of construction personnel involved in the removal of pier pilings or intertidal or subtidal shoreline armoring/riprap to inform them about invasive marine species in San Francisco Bay that might be attached to removed structures. Actions to be taken to prevent the release and spread of marine invasive species, especially algal species. Procedures for the safe removal and disposal of any invasive taxa observed on the removed structures prior to disposal. A post-construction report identifying what, if any, invasive species were found attached to removed equipment and materials and the treatment/ handling of identified invasive species. 		to be approved by RWQCB, Coast Guard, and State Lands Commission,				
MM-3.3-10: (Applicable to Impact 3.3-12) Mitigation for Bay–Delta Fill: As part of the project permitting efforts with BCDC, the RWQCB, and CDFW, VMT will identify, execute, and/or fund sufficient mitigation activities that will adequately compensate for the placement of new Bay– Delta fill on subtidal and intertidal areas of the Project site. All mitigation proposed as compensatory mitigation would be subject to specific success criteria, success monitoring, long-term preservation, and long- term maintenance and monitoring pursuant to the requirements of the Mitigation Rule. All compensatory mitigation will fully replace lost function through the mechanisms discussed below which will result in restoration and/or creation of habitat with at least as much function and value as those of the impacted habitat. In some cases, the mitigation habitat will afford significantly higher function and value than that of impacted habitat. Compensation ratios are driven by type, condition, and location of replacement habitat as compared to type, condition and location of impacted habitat. Compensatory mitigation usually includes restoration,	Determined before construction/ Monitored during operation	Project Applicant: Monitor funded by applicant and under contract with City of Vallejo, and paid by the project applicant. Plan to be approved by BCDC, RWQCB,	City of Vallejo Planning Division, BCDC, RWCQB, CDFW			

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	N	litigation Monitor	ing	Re	Reporting		
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials	
 creation, or rehabilitation of aquatic habitat. Typically, impacted habitat will be replaced in-kind, although impacts on some habitat types will be mitigated out- of-kind with higher functioning habitat types such as riparian wetland, marsh, and/or seasonal wetland. Compensatory mitigation will be accomplished by one, or a combination of the following methods: Purchase credits for restored/created/rehabilitated habitat On-site (adjacent to the project footprint) restoration or rehabilitation On-site (adjacent to the project footprint) creation of aquatic habitat Off-site restoration or rehabilitation of similar habitat Off-site creation of aquatic habitat; and/or Payment into a Fee-in-Lieu program. The amount and level of mitigation will be in accordance with mitigation efforts as outlined in the Bay Plan, CDFW regulations for impingement of onshore operations on migration corridors, and the Porter–Cologne Act. 							
	Cultural Resou		I		1		
MM-3.4-1a: (Applicable to Impact 3.4-1) A historic preservation plan shall be prepared and implemented to aid in preserving those historic resources proposed to be retained within the original Sperry Mill site. These include the administration building and garage, the manager's house, and the barn, all of which shall be protected from direct or indirect impacts during construction activities (i.e., due to damage from operation of construction equipment, staging, material storage, and vibrations). If deemed necessary upon further condition assessment of the buildings, the plan shall include the preliminary stabilization, prior to construction, of deteriorated or damaged materials or systems that may be hazardous. At a minimum, the plan shall include:	Prior to issuance of demolition permits; during construction	Project applicant; qualified architectural historian or historical architect paid for by the applicant and under contract to the City	City of Vallejo Planning Division				

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	N	Mitigation Monitoring				
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
 A requirement for the placement of perimeter fencing and signs around the historical resources to identify them as sensitive resources to be avoided; Guidelines for operation of construction equipment adjacent to historical resources; Guidelines for storage of construction materials away from the resources; Requirements for monitoring and documenting compliance with the plan; and Education/training of construction workers about the significance of the historical resources around which they would be working prior to commencing of construction activity. The training program shall be prepared by a historical architect and approved by Planning Division staff. The plan shall be prepared by a qualified architectural historian or historical architect who meets the Secretary of Interior's Professional Qualification Standards (36 CFR, Part 61). The plan shall be reviewed and approved by Planning Division staff. The project applicant shall ensure that the contractor follows these plans. The protection plan, specifications, monitoring schedule, and other supporting documents shall be incorporated into the building permit application plan sets. 		shall review and approve the plan.				
historical architect and a structural engineer shall undertake an existing condition study of the administration building and garage. The purpose of the study would be to establish the baseline condition of the structures prior to construction. The documentation shall take the form of written						
descriptions and visual illustrations, including those physical characteristics of the resource that convey its historical significance and						

Table 1
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	N	litigation Monitori	Re	eporting		
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
that justify its inclusion on, or eligibility for inclusion on, the California Register of Historical Resources.						
The historical architect shall make periodic site visits to monitor the condition of the resource, including monitoring of any instruments such as crack gauges. The historical architect shall consult with thea State of California licensed structural engineer to ensure that character-defining features are protected, especially if any problems with character-defining features of the historic resource are discovered. If in the opinion of the monitoring team, substantial adverse impacts to the historic resource related to construction activities are found during construction, the monitoring team shall so inform the project applicant or designated representative responsible for construction activities. The project applicant shall adhere to the monitoring team's recommendations for corrective measures prior to commencement of any construction activities would imminently endanger the historic resource. The monitoring team shall prepare site visit reports and submit them for review and approval by Planning Division staff.						
MM-3.4-1c: (Applicable to Impact 3.4-1) Upon completion of construction activities at the proposed project site, the qualified architectural historian or historical architect shall document (e.g., with photographs and other appropriate means) the level of success in meeting the Secretary of the Interior's Standards for the Treatment of Historic Properties and in preserving the character-defining features of the identified historic resources. The documentation shall be submitted to Planning Division staff for review and approval. The project applicant shall ensure that repairs occur in the event of damage to the historic resources during construction. Repair work shall						

	N	litigation Monitor	ing	Re	eporting	
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties and shall restore the character-defining features in a manner that does not affect the eligibility of the historic property for the California Register of Historical Resources. All repairs shall be reviewed by Planning Division staff in consultation with the architectural historian or historical architect.						
MM-3.4-2a: (Applicable to Impact 3.4-2) Prior to the issuance of demolition or site permits, the project applicant shall undertake Historic American Building Survey (HABS) documentation of the subject property, structures, objects, materials, and site features. The documentation shall be undertaken by a qualified professional who meets the standards for history, architectural history, or historic architecture (as appropriate), as set forth by the Secretary of the Interior's Professional Qualification Standards (36 CFR, Part 61). The documentation shall consist of the following: Measured Drawings The project applicant shall engage the services of an architectural historian to conduct research to find plans and drawings of the structures on the project site which comprise the historic resources, most importantly those of the flour mill and grain silos. If plans are found and can be made available for reproduction, they shall be reproduced on architectural historian or historical architect shall prepare sketch plans for the flour mill building. One sketch plan shall be made of one floor of the tower portion of the flour mill. In addition, sketch floor plans shall be made of the administration building and garage.	Prior to issuance of building/demoli tion permits; during construction	Project applicant: qualified historian	City of Vallejo Planning Division			

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	N	litigation Monitori	Re	eporting		
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
An architectural historian or historical architect shall prepare a site plan, including the manager's house and grounds. Site plans prepared by the project applicant can be used as a base. Photography Large format negatives shall be required. Photography shall be undertaken by a qualified professional with demonstrated experience in Historic American Buildings Survey photography and shall follow the HABS/HAER/HALS Photography Guidelines (National Park Service, Heritage Documentation Programs, 2011). Digital prints shall be acceptable. Photography shall include context photographs, site features, and all structures on the project site that comprise the historic resources. The photographer shall consult with the architectural historian engaged in the measured drawings and historical report about the type and number of views required for the documentation of the potential historic district. Historical Report An architectural historian shall prepare a written Narrative Report based on HABS Guidelines for Preparing Written Historical and Descriptive Data. Carey and Company's previ ous report (2008) and the revised evaluation for this historic resources evaluation can be used in the preparation of the Narrative Report. The architectural historian shall make an effort to locate and conduct an oral history interview with Floyd Miller, who provided assistance with the 2008 report. All documentation shall be submitted for review and approval by Planning Division staff prior to the issuance of final building occupancy permits. The final documentation shall be disseminated to the John F. Kennedy Library, Northwest Information Center, Sonoma State University (California Historical Resource Information System), and Vallejo Naval and Historical Museum.						

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MM-3.4-2b: (Applicable to Impact 3.4-2) The project applicant shall install permanent interpretive exhibits at the Vallejo Naval and Historical Museum that provide information to visitors and occupants regarding the history of the Sperry Flour Mill. The interpretive exhibit shall utilize images, narrative history, drawings, or other archival resources. The interpretive exhibits may be in the form of, but are not necessarily limited to plaques or markers, interpretive display panels. The interpretive exhibits shall be installed at a pedestrian friendly location, and be of adequate size to attract the interested public. The project applicant's consultant shall submit conceptual and final designs to Planning Division staff for review and approval.	Prior to issuance of a certificate of occupancy					
MM-3.4-3: (Applicable to Impact 3.4-3 and 3.4-4) In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the proposed project or the off-site improvements, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can be retained to evaluate the significance of the find and determine whether additional study is warranted. Depending on the significance of the find under the California Environmental Quality Act (CEQA) (14 CCR 15064.5(f); California Public Resources Code, Section 21082), the archaeologist may record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.	Construction	Contractor/ builder; qualified archaeologist	City of Vallejo Planning Division			
MM-3.4-4: (Applicable to Impact 3.4-5) If potential fossils are discovered by construction crews, all earthwork or other types of ground disturbance within 50 feet of the find shall stop immediately until a qualified professional paleontologist can assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of	Prior to and during grading activity	Project applicants; contractor/ builder; qualified paleontologist	City of Vallejo Planning Division			

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the fossil. If treatment and salvage is required, recommendations shall be consistent with Society of Vertebrate Paleontology 1995 guidelines and currently accepted scientific practice, and shall be subject to review and approval by the City. Work in the affected area may resume once the fossil has been assessed and/or salvaged and the City—in consultation with the professional paleontologist—has provided written approval to resume work.		in contract to the City of Vallejo paid by the project applicant				
MM-3.4-5: (Applicable to Impact 3.4-6 and 3.4-7) In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are encountered by project personnel, the County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission (NAHC) in Sacramento within 48 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendent (MLD) of the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative shall then determine, in consultation with the property owner, disposition for the human remains.	Construction (ground disturbance)	Contractor/ Builder/Project Applicant	City of Vallejo Planning Division			

	N	litigation Monitor	ing	Re	eporting	
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
	Geology and .		1	1	T	1
MM-3.5-1: (Applicable to Impact 3.5-1) Maintenance of Adequate Slope Stability. Prior to approval of final project designs, the applicants shall: (a) Prepare and submit for review construction-level plans for the catchment and retaining wall to be placed at the toe of the slope on the Orcem Site; and (b) Prepare and submit for review construction-level plans and a supplemental soil engineering review to demonstrate that proposed final design slopes on the VMT Site would maintain adequate factors of safety under both static and pseudo-static conditions. The supplemental investigation shall include additional exploratory borings, trenching, laboratory testing, and geologic analyses, as necessary, to ensure the analysis is based on the proper distribution and characteristics of earth materials, and adequately informs the final designs of proposed retaining walls. The acceptable level of stability (i.e., seismic and static factor of safety (FOS) values) shall be determined by the geotechnical consultant in consultation with the City of Vallejo Building Division and or Public Works Department; but in no case shall be below a static FOS of 1.5 or a pseudo static FOS of 1.15. All slope stability evaluations shall be prepared and stamped by a registered geotechnical engineer or engineering geologist, and reviewed and approved by the City of Vallejo Building Division and or Public Works Department prior to approval of final building plans.	Project planning and permitting; Prior to issuance of a grading permit	Project applicant;	City of Vallejo Planning & Building Divisions and Public Works Department			
	Greenhouse Gas I	missions	1	1	1	T
 MM-3.6-1: (Applicable to Impact 3.6-1) The following measures are required to be implemented to reduce greenhouse gas (GHG) emissions associated with operation of the proposed project: Fuel used in all on-site equipment shall initially consist of 20% biodiesel (a fuel blend of 20% biodiesel in 80% petroleum diesel). As production increases, the biodiesel content of the fuel shall be increased as feasible. The applicants shall conduct annual 	Operation	Project applicant to prepare annual reports and information on fuel used; Monitor funded	City of Vallejo Planning Division			

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 reviews regarding the availability of technically equivalent or better technologies and report to the City. If the technology is determined to be feasible in terms of cost and technical and operational feasibility, the applicants shall implement such technology. Fuel supply shall consist of compressed natural gas for forklifts and front-end loaders. 		by applicant and as a third- party reviewer contracted by the City of Vallejo shall review applicant reports.				
 MM-3.6-2a: (Applicable to Impact 3.6-2 and 3.6-3) Orcem and VMT shall encourage employee commute alternatives such as carpooling and biking options by providing information to employees about alternative transportation, providing subsidized bus passes, and including employee showers on site. As part of this effort, Orcem and VMT shall implement an employee worker ridership program to encourage alternative work commute options to reduce single-occupancy vehicle trips during project operation. A commute program manager shall be designated to provide information to employees using the BAAQMD 511 services (accessed at www.511.org) or a similar Bay Area transit information provider. The program shall include a provision to notify all future employees of the worker ridership program prior to the start of project operations and shall notify employees of the 511 RideMatch Service (available at https://www.ridematch.511.org/SanFrancisco/TDMRegistration.jsp?idScr een=REGISTRN1) or similar communication method, to ensure personnel can identify potential carpooling program participants. All 	Operation	Project applicant to prepare annual report detailing program success.	City of Vallejo Planning Division			
Orcem and VMT employees shall be encouraged through the program to create an account with 511 (at https://my511.org/) or create an account with a similar transit information provider. Personal accounts will allow employees to log their commute activity, identify rideshare options, use						

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alternative transportation features and trip planning services, and other features to encourage alternative commute methods. Additional resources Orcem and VMT may utilize for the implementation of an alternative commute program can be found at: http://rideshare.511.org/employers/downloads.aspx.						
MM-3.6-2b: (Applicable to Impact 3.6-2 and 3.6-3) Orcem and VMT shall either eliminate the use of turf and artificial grass in landscaping, or landscape the site with native vegetation and minimize the use of turf, in order to reduce the need for gas-powered lawn and garden equipment.						
MM-3.6-2c: Applicable to Impact 3.6-2 and 3.6-3) Orcem and VMT shall use drought-tolerant plant types where landscaping is proposed, in order to minimize the use of water.						
MM-3.6-2d: Applicable to Impact 3.6-2 and 3.6-3) Orcem and VMT shall use greywater, recycled water, and rainwater catchment systems for irrigation, if feasible, for proposed landscape areas. If at least one of these alternative water sources are not employed, Orcem and VMT shall demonstrate infeasibility to the City.						
MM-3.6-3: Applicable to Impact 3.6-4) Structural members associated with the VMT deep-water terminal construction, including components that would be affected by sea level rise, shall be designed to resist extreme tidal event loads and continual salt water submergence to the satisfaction of the City engineer.	Pre- construction	Project applicant	City of Vallejo Planning and Building Division and Public Works Department			
Haz	zards and Hazardo	us Materials				
MM-3.7-1a: Applicable to Impact 3.7-1) Hazardous materials shall not be disposed of or released onto the ground, the underlying groundwater, or any surface water. Totally enclosed containment shall be provided for	Prior to issuance of a demolition	Project applicants; contractor/	City of Vallejo Planning Division and			

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all trash. All construction waste, including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials, shall be removed to a waste facility permitted to treat, store, or dispose of such materials.	permit; (if hazardous building materials are identified)	builder	Building Division & Public Works Department, Fire Department			
MM-3.7-1b: Applicable to Impact 3.7-1) A Hazardous Materials Management Plan shall be prepared to discuss hazardous materials management, handling, storage, disposal, and emergency response planning to be implemented during construction. Hazardous materials used and stored on site for the proposed construction activities — as well as hazardous wastes generated on site as a result of the proposed construction activities — shall be managed according to the specifications outlined below. Hazardous Materials and Hazardous Waste Handling: A project- specific hazardous materials management and hazardous waste handling program shall be developed prior to initiation of the project. The program will include the following components: (1) proper hazardous materials use, storage and disposal requirements as well as hazardous waste management procedures; (2)the program shall identify types of hazardous materials to be used during the project and the types of wastes that would be generated; and (3) all project personnel shall be provided with project-specific training prior to commencement of construction to ensure that all hazardous materials and wastes associated with the project are handled in a safe and environmentally sound manner and disposed of according to applicable rules and regulations. Specifically, employees handling wastes shall have or receive hazardous materials training and shall be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and treatment, storage and disposal facility (TSDF) training in accordance with current OSHA Hazard Communication Standard and Title 22 CCR.	Prior to construction		City of Vallejo Planning Division and Building Division & Public Works Department, Fire Department			

	N	litigation Monitori	ng	Re	eporting	
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Transport of Hazardous Materials: Hazardous materials that would be transported by truck include fuel (diesel fuel and gasoline) and oil and lubricants for equipment. Containers used to stored hazardous materials would be properly labeled and kept in good condition. Written procedures for the transport of hazardous materials used would be established in accordance with U.S. Department of Transportation and Caltrans regulations. A qualified transporter would be selected to comply with U.S. Department of Transportation and Caltrans regulations. Fueling and Maintenance of Construction Equipment: Written						
procedures for fueling and maintenance of construction equipment would be prepared prior to construction. Procedures will require the use of drop cloths made of plastic, drip pans and trays to be placed under refilling areas to ensure that chemicals do not come into contact with the ground. Refueling would be located in areas where absorbent pad and trays would be available. The fuel tanks would also contain a lined area to ensure that accidental spillage does not occur. Drip pans or other collection devices would be placed under the equipment at night to capture drips or spills. Equipment would be inspected daily for potential leakage or failures. Hazardous materials such as paints, solvents, and penetrants would be kept in an approved locker or storage cabinet.						
Emergency Release Response Procedures: An Emergency Response Plan detailing responses to releases of hazardous materials would be developed prior to construction activities. The plan must prescribe hazardous materials handling procedures for reducing the potential for a spill during construction, and would include an emergency response program to ensure quick and safe cleanup of accidental spills. Hazardous materials shall not be stored near drains or waterways. Fueling shall not						

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take place within 200 feet of drains or waterways with flowing water or within 75 feet of drains or waterways that are dry. All construction personnel, including environmental monitors, would be made aware of state and federal emergency response reporting guidelines for accidental spills. The Plan shall be submitted to Public Works Department and the Fire Department 30 days prior to the start of construction for review and approval.						
MM-3.7-2a: (Applicable to Impact 3.7-3) An abatement work plan shall be prepared in compliance with local, state, and federal regulations for any necessary removal of hazardous materials. The work plan shall include a monitoring plan to be conducted by a qualified consultant during abatement activities to ensure compliance with the work plan requirements and abatement contractor specifications. Demolition plans and contract specifications shall incorporate any necessary abatement measures for the removal of materials containing asbestos. The measures shall be consistent with the abatement work plan prepared for the project and conducted by a licensed lead/asbestos abatement contractor. Asbestos abatement shall be conducted in coordination with the BAAQMD, in accordance with District Regulation 11-2-401.3.	Prior to issuance of a Demolition permit	Project Applicant Contractor, Builder Qualified Monitor. DHS shall submit compliance report in support of demolition permit.	City of Vallejo, Planning and Building Division and Public Works Department, BAAQMD			
Health Services (DHS)-certified lead inspector shall survey the buildings for the presence of lead-based paint. Additionally, a qualified environmental specialist shall inspect the site buildings for the presence of polychlorinated biphenyls (PCBs), mercury, and other hazardous building materials prior to demolition. If found, these materials shall be managed in accordance with the Metallic Discards Act and other state and federal guidelines and regulations. Demolition plans and contract						

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specifications shall incorporate any necessary abatement measures in compliance with the Metallic Discards Act of 1991 (Public Resource Code Sections 42160–42185), particularly Section 42175, Materials Requiring Special Handling for the removal of mercury switches, PCB-containing ballasts, and refrigerants. Lead abatement shall be conducted in accordance with California DHS requirements. MM-3.7-2c: (Applicable to Impact 3.7-3) A Waste Management and Reuse Plan shall be prepared to discuss the types of wastes anticipated to be generated during construction and operation, the proposed waste handling procedures, proposed waste storage locations, inspection procedures, and proposed waste disposal. The Waste Management and Reuse Plan will also discuss waste minimization and the reuse of demolished site building materials on site. The plan shall discuss estimated quantities of on-site building materials to be reused, the proposed processing of such materials, the proposed disposition of such materials, and the proposed screening and testing procedures to be used to ensure the material reuse will not impact human health or the presence of oil-stained concrete. Oil-stained concrete shall be disposed of off-site and excluded from on-site reuse.						

 MM-3.7-3: (Applicable to Impact 3.7-4 and 3.7-5) In the event that site grading activities will encounter evidence of contamination or other environmental concerns, a Hazardous Materials Contingency Plan shall be followed during excavation at the subject property. The plan shall (1) specify measures to be taken to protect worker and public health and safety and (2) specify measures to be taken to identify, manage and remediate wastes. The plan should include the following: Identification of the known former storage tank and soil contamination areas. Information on how to identify suspected contaminated soil. Worker health and safety monitoring procedures, including monitoring for organic vapors using a photoionization detector or other organic vapor analyzer and monitoring dust levels. Organic vapor action levels will be established based on Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs). Dust action levels will be established based on use of the known arsenic soil concentrations, the PEL, and a factor of safety. Procedures for temporary cessation of construction activity and evaluation of the level of environmental concern. Procedures for notification and reporting, including internal management and local agencies (fire department, Department of Environmental Health, Air Pollution Control District, etc.), as needed. A worker health and safety plan for excavation of contaminated soil. Procedures for characterizing and managing excavated soils. 	Prior to issuance of a Demolition permit	Project Applicant Contractor, Builder. Plan produced by hazards consultant funded by applicant and under contract with City of Vallejo	City of Vallejo, Planning and Building Division and Public Works Department, BAAQMD		
Response Plan. Both the Orcem and VMT facilities shall prepare an emergency response plan for project operations which establishes responsibilities, procedures, and a chain of command to follow in the event of a fire, vehicle/truck collision, train derailment, or cargo ship incident or other natural disaster. The plan shall include general notification requirements to local and regional	issuance of a Demolition permit	Applicant Contractor, Builder. Plan produced by	Division and Building & Safety Department, Fire Department, Solano County		

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agencies with emergency response capabilities of the location and operational profile of the project, including address, directions, lists of hazardous materials stored on site, and access information. Information must be sufficient in detail to allow quick recognition and access in the event of an emergency. The plan shall require coordination with local first responders and emergency planning agencies (e.g., Water Emergency Transportation Authority, USACE, fire department, medical facilities, City/County emergency operations center, and County hazardous materials teams) in the event of an emergency situation. The plan shall outline responsibilities and notification requirements for each type of accident or upset condition that may occur on site. The plan shall designate staff persons responsible for addressing and immediately responding to hazardous materials leaks or spills, and shall establish training and record keeping requirements to ensure such teams are qualified and trained in the California OSHA Hazardous Waste Operations and Emergency Response Standard (HAZWOPER). The plan shall include procedures for the assessment and cleanup of any on-site spills or leaks resulting from emergency or upset conditions. Finally, Orcem and VMT personnel shall assist the Environmental Health Services Division, as the Certified Unified Program Agency in revising the Solano County Hazardous Materials Area Plan to address the response during the marine, truck, and rail traffic transportation of materials to or from the project location.		consultant funded by applicant and under contract with City of Vallejo	Health Department and BAAQMD			
	lydrology and Wat	er Quality	1	1	1	
MM-3.8-1 : (Applicable to Impact 3.3-8, 3.7-2 and 3.8-1) Dredged Material Management Plan. Prior to construction of the VMT project component, the applicant shall develop a dredged material management plan to outline procedures necessary to evaluate the suitability of dredged materials for either on-site beneficial reuse or in-bay disposal at the Carquinez disposal or other approved site. The purpose of the plan shall be to ensure that dredged materials are handled in a manner that is consistent with the San Francisco Bay Long-Term Management Strategy for Dredging developed cooperatively	Prior to issuance of a Demolition permit	Project Applicant. Contractor, Builder; plan to be approved by BCDC, RWQCB	City of Vallejo Planning Division,			

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by the U.S. Environmental Protection Agency (EPA), (USACE, the San Francisco Regional Water Quality Control Board (RWQCB), and the Bay Conservation and Development Commission (BCDC). The plan shall include screening and testing guidelines necessary to ensure dredged materials may be reused on-site without resulting in potentially adverse impacts on water quality and aquatic biota.						
The dredged material management plan shall be prepared and implemented by a qualified professional geochemist or water quality expert with relevant Bay–Delta project experience. In consultation with San Francisco Bay RWQCB and BCDC staff, and in consideration of the applicable water quality objectives and known water quality impairments within receiving waters, the plan shall outline the type and frequency of testing that would be required as materials are dredged out of the Bay. The plan shall develop site-specific thresholds that would indicate the material is suitable for on-site reuse using input from the San Francisco Bay RWQCB and the following document: <i>Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines</i> . Testing protocols from <i>Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S.</i> – <i>Testing Manual (Inland Testing Manual)</i> shall also be incorporated into the plan where applicable.						

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Prior to issuance of a Demolition permit	Project Applicant Contractor, Builder. Plan produced by consultant funded by applicant and under contract with City of Vallejo approved by RWQCB, BCDC	City of Vallejo, Building Division & Public Works Department ,			
Noise	1				
Operation – prior to use of train service	Project Applicant and monitor paid for by the applicant and under contract to the City of Vallejo.	City of Vallejo Planning Division and Public Works Department			
	Implementing Period Prior to issuance of a Demolition permit permit Noise Operation – prior to use of	Implementing Period Implementing Party Prior to issuance of a Demolition permit Project Applicant Contractor, Builder. Plan produced by consultant Builder. Plan produced by consultant funded by applicant and under contract with City of Vallejo approved by RWQCB, BCDC Operation – prior to use of train service Project Applicant and monitor paid for by the applicant and under contract to the City of	Implementing PeriodImplementing PartyEnforcing AgencyPrior to issuance of a Demolition permitProject Applicant Contractor, Builder. Plan produced by consultant funded by applicant and under contract with City of Vallejo approved by RWQCB, BCDCCity of Vallejo, Building Division & Public Works Department, Department,NoiseNoiseOperation – prior to use of train serviceProject Applicant and under contract to the City ofOperation – prior to use of train serviceProject Applicant and under contract to the City of	Implementing Period Implementing Party Enforcing Agency Comments Prior to issuance of a Demolition permit Project Applicant City of Vallejo, Building Division Building Division Demolition permit Contractor, Builder. Plan produced by consultant funded by applicant and under contract with City of Vallejo approved by RWQCB, BCDC Department, Department, Noise Vallejo Applicant and under contract with City of Vallejo approved by RWQCB, BCDC City of Vallejo Planning Division and Public Works Department Project Planning Division and Public Works Department	Implementing Period Implementing Party Enforcing Agency Comments Date Prior to issuance of a Demolition permit Project Applicant Contractor, Builder. Plan produced by consultant funded by applicant and under contract with City of Vallejo approved by RWQCB, BCDC City of Vallejo, Building Division & Public Works Department , Implementing Comments Date Noise Vallejo Applicant and under contract with City of Vallejo approved by RWQCB, BCDC City of Vallejo Planning Division and Public Works Department Implementing Agency Comments Date

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MM-3.10-1c: (Applicable to Impact 3.10-1 and 3.10-4) On the basis of the review of the Draft EIR, mitigation has been incorporated to account for a shift in train arrivals and departures time. Following the preparation of the Draft EIR, the California Northern Railroad has confirmed the proposed project will be served by the normal operating hours of the railroad from 7:00 a.m. to 6:00 p.m. Monday to Friday. When railroad arrivals or departures are limited to daytime hours only, the L _{night} and L _{dn} levels would be only slightly reduced. In addition, all on-site rail loading and unloading activity shall be limited to the hours between 7:00 a.m. and 10:00 p.m.						
 MM-3.10-2: (Applicable to Impact 3.10-2 and 3.10-5) In order to reduce the noise impact of the plant operation, a series of improvements are required for specific items in the plant as follows. An in-line attenuator shall be incorporated between the main fan (561-FN1) and the stack exhaust, offering minimum insertion losses as per Table 3.10-31. Local screening shall be provided adjacent to the clinker store bag filter fan (513-FN1) to reduce the noise level by 19 decibels (dB). Local screening shall be provided adjacent to the bag filter fan (521-FN1) to reduce the noise level by 18 dB. Local screening shall be provided adjacent to the air shock (531-AB1) to reduce the noise level by 9 dB. Local screening shall be provided adjacent to the main fan (561-FN1) to reduce the noise level by 9 dB. Local screening shall be provided adjacent to the bag filter fan (521-FN1) to reduce the noise level by 9 dB. Local screening shall be provided adjacent to the main fan (561-FN1) to reduce the noise level by 9 dB. Local screening shall be provided adjacent to the bag filter fan silter fan on the intake Silo (521-FN2) to reduce the noise level by 8 dB. Local screening shall be provided adjacent to the air slide fans within the filter building (591-FA1, 591-FA2, 591-FA3) to reduce the noise level by 7 dB. 	Prior to issuance of a Demolition permit	Project Applicant Contractor, Builder; and monitor paid for by the applicant and under contract to the City of Vallejo.	City of Vallejo, Building Division			

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Local screening shall be provided adjacent to the filter building bag filter fan (591-FN1) and the silo fan (591-FN3) to reduce the noise emission of each source by 3 dB.							
 MM-3.10-3a: (Applicable to Impact 3.10-6 and 3.10-8) The following measures shall be adhered to during construction of the VMT facility. All construction equipment must have appropriate sound-muffling devices, which shall be properly maintained and used at all times such equipment is in operation. Where feasible, the project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site. The construction contractor shall locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site. Except as otherwise permitted, construction activities shall be restricted to the hours of 7:00 a.m. to 9:00 p.m. Monday to Saturday. Construction shall be prohibited on Sundays. Large pot-holes or rough pavement along Derr Avenue and Lemon Street within 0.50 mile of the plant shall be repaired in accordance with standards as determined necessary and feasible by the Vallejo Public Works Director to reduce roadway noise from construction vehicle and equipment transport. MM-3.10-3b: (Applicable to Impact 3.10-6 and 3.10-8) The following measures shall be required in order to lessen pile-driving noise impacts. Use a timber cushion block between the pile and hammer head to reduce impact noise. 	Construction	Project applicants; contractor/ builder; acoustical specialist and monitor paid for by the applicant and under contract to the City of Vallejo.	City of Vallejo Building Division & Public Works Department				

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 Correct alignment of pile and rig to reduce noise from pile guides and attachments. Use acoustic screens or efficient sound reducing exhausts to power units. 						
 MM-3.10-4: (Applicable to Impact 3.10-7 and 3.10-8) The following measures shall be adhered to during construction of the Orcem facility. All construction equipment must have appropriate sound-muffling devices, which shall be properly maintained and used at all times such equipment is in operation. Where feasible, the project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site. The construction contractor shall locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site. Except as otherwise permitted, construction activities shall be restricted to the hours of 7:00 a.m. to 9:00 p.m. Monday to Saturday. Construction shall establish and maintain a hot-line for the duration of the construction period to receive and respond to noise complaints. 	Construction	Project applicants; contractor/ builder; acoustical specialist and monitor paid for by the applicant and under contract to the City of Vallejo.	City of Vallejo Planning Division and Public Works Department			
	Transportation an	1			1	
MM-3.12-1: (Applicable to Impact 3.12-1) The City of Vallejo shall require that a Construction Traffic Management Plan be developed as part of a larger Construction Management Plan to address potentially significant impacts during construction of the VMT and Orcem project components. As part of the plan development, the project applicants and their construction contractors shall meet with appropriate City of Vallejo departments to determine traffic management strategies to	Prior to the issuance of a building permit; Construction	Applicant; plan to be reviewed and monitored by a monitor paid for by the applicant and under contract	City of Vallejo Public Works Department			

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reduce, to the maximum extent feasible, traffic congestion and the		to the City of				
effects of parking demand by construction workers during construction		Vallejo.				
of the projects and other nearby projects that could be simultaneously		2				
under construction. The project applicants shall develop the plans for						
review and approval by the appropriate City departments. The plans						
shall include at least the following items and requirements:						
A. A set of comprehensive traffic control measures, including						
scheduling of major truck trips and deliveries to avoid peak traffic						
hours, detour signs if required, lane closure procedures, signs,						
cones for drivers, and designated construction access routes.						
B. Notification procedures for adjacent property owners and public						
safety personnel regarding when major deliveries, detours, and						
lane closures will occur.						
C. Location of construction staging areas for materials, equipment,						
and vehicles at an approved location.						
D. A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an on-site complaint						
manager. The manager shall determine the cause of the						
complaints and shall take prompt action to correct the problem. A						
complaint manager shall be designated and their name and phone						
number shall be provided to Planning and Zoning prior to the						
issuance of the first permit issued by Building Division.						
E. Provision for accommodation of pedestrian flow.						
F. Provision for parking management and spaces on the project site						
for all construction workers to ensure that construction workers do						
not park in on-street spaces.						
G. Any damage to the street caused by heavy equipment, or as a						
result of this construction, shall be repaired, at the project						
applicant's expense, within 1 week of the occurrence of the						
damage (or excessive wear), unless further damage/excessive						

Table 1	
Mitigation Monitoring and Reporting Prog	gram

	Mitigation Monitoring			Re	eporting	
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
wear may continue; in such case, repair shall occur prior to issuance of a final inspection of the building permit and in coordination with MM-3.12-4a. All damage that is a threat to public health or safety shall be repaired immediately. The street shall be restored to its condition prior to the new construction as established by the City Building Inspector and/or photo documentation, at the project sponsor's expense, before the issuance of a Certificate of Occupancy.						
 Any heavy equipment brought to the construction site shall be transported by truck, where feasible. 						
I. No materials or equipment shall be stored on the traveled roadway or public right-of-way at any time.						
J. Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through project completion.						
 K. All equipment shall be equipped with mufflers. L. Prior to the end of each work day during construction, the contractor or contractors shall pick up, sweep and properly dispose of all litter resulting from or related to the project, whether located on the property, within the public rights-of-way, or properties of adjacent or nearby neighbors. 						
MM-3.12-2a: (Applicable to Impact 3.12-2, 3.12-3, and 3.12-5) The applicants shall work with the California Northern Railroad to limit train movements through Vallejo to between 9:00 a.m. and 4:00 p.m., (7 days a week) thus minimizing the traffic queueing associated with the train movements across the grade crossings throughout the city during peak commute hours. MM-3.12-2b: (Applicable to Impact 3.12-2, 3.12-3, and 3.12-5) Prior to the issuance of permits for rail operations, the project applicants shall	Operations Prior to rail improvements.	Applicant	City of Vallejo Planning Division Fire Department, Police Department			

	Mitigation Monitoring			Re	eporting	
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
notify the police and fire departments of proposed rail operations and potential delays to facilitate alternative routing during emergencies.						
 MM-3.12-3: (Applicable to Impact 3.12-4) To provide for the safe movement of project trucks along with other existing pedestrian, bicycle, and vehicular traffic on Lemon Street between the project site and Sonoma Boulevard and through the intersection of Lemon Street/Sonoma Boulevard, the applicants shall retain the services of a qualified State of California licensed engineer to prepare a structural pavement assessment for this segment of roadway, which shall be submitted for review and approval by the City Public Works Department. The assessment shall evaluate the existing pavement condition/strength against the project's demands utilizing methodology acceptable to the City, and shall identify recommended improvements (for example, overlay, reconstruction, base repair, etc.) necessary to meet this demand, based on the schedule of combined VMT and Orcem truck traffic. The City shall determine the project's fair-share allocation of costs in relationship to overall improvement costs, and all necessary improvements shall be made prior to the issuance of a certificate of occupancy. In addition, the applicants shall work with the City of Vallejo Public Works Department to identify, design, and prepare a cost estimate for those physical improvements necessary to provide adequate sight distance and maneuvering capacity for trucks along this segment of roadway, including the intersection at Lemon Street/Sonoma Boulevard. The needed improvements may include for example, centerline striping, potential on-street parking changes, sidewalk gap closures and widenings. The applicants shall provide an engineers cost esimate for the improvements, to be approved by the Public Works Department. The Public Works Department shall 	Prior to issuance of building permits Improvements must be made prior to the issuance of a certificate of occupancy	Applicant; Public Works Department	City of Vallejo Public Works Department			

Table 1
Mitigation Monitoring and Reporting Program

	Mitigation Monitoring			Re	eporting	
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
determine the project's fair-share cost allocation for the necessary improvements. All necessary improvements shall be constructed prior to the issuance of a certificate of occupancy.						
 MM-3.12-4: (Applicable to Impact 3.12-6) The project applicants shall work with the City of Vallejo to identify, design, and construct improvements on Lemon Street between the project site and Curtola Parkway, and on Sonoma Boulevard between Lemon Street and I-80 where not already funded or completed, to provide for safe movement of pedestrians and bicycles along and across this section of roadway, and to provide for the safe movement of project trucks through portions of this roadway where existing residential driveways take direct access, consistent with the applicable General Plan policies (see Final EIR Sections 3.9 and 3.12.1). Improvements may include, but are not limited to, the following: Provision of continuous 4-foot minimum-width sidewalks from Alden Street to Curtola Parkway, including closure of all gaps. Installation of high-visibility crosswalks (i.e., continental or zebra striping, and installation of pedestrian hybrid beacon or rectangular rapid flashing beacon devices if indicated by an engineering study), with curb extensions where feasible, at high-pedestrian use intersections as identified by the Public Works Department, including the intersections of Lemon Street with Sheridan Street, Lincoln Highway, Sonoma Boulevard, and Porter Street. Lowering of the speed limit to 25 miles per hour (mph), subject to an engineering and traffic survey supporting the speed zone. The project applicants shall provide an engineer's cost estimate for the necessary improvements, to be approved by the Public Works 	Prior to issuance of building permits Improvements must be made prior to the issuance of a certificate of occupancy	Applicant	City of Vallejo Public Works Department			

	Mitigation Monitoring			Re	eporting	
Mitigation Measure	Implementing Period	Implementing Party	Enforcing Agency	Comments	Date	Initials
Department. The Public Works Department shall determine the project's fair-share costs allocation for the necessary improvements. The necessary improvements shall be constructed prior to the issuance of a certificate of occupancy.						

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