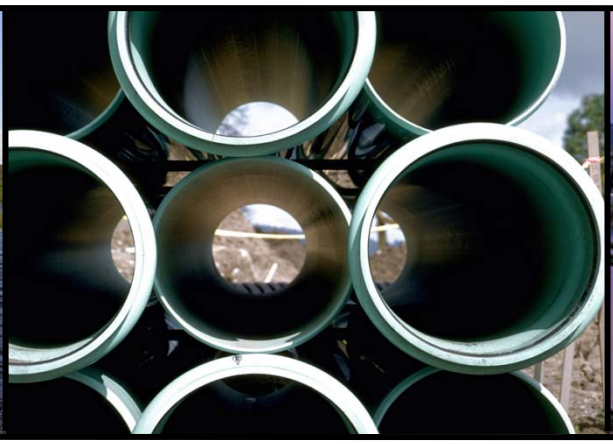
Local Area Pipeline Network Project

Final Environmental Impact Report



March 2011

Prepared for :

Contra Costa County
Department of Conservation and Development

State Clearinghouse No. 2009032014

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Certification of the Final Environmental Impact Report (EIR) for the Local Area Network Pipeline Project in Contra Costa County, SCH# 2009032014.

The Final EIR for the Local Area Network Pipeline Project prepared for the Contra Costa County Department of Conservation and Development is now complete. As Senior Planner for the department's Community Development Division, the lead agency under CEQA, I have reviewed the Final EIR, including the response to comments, on the Draft EIR and other related documents.

In accordance with CEQA Guidelines Section 15090, I hereby certify:

1. The final EIR has been completed in compliance with CEQA;

2. The Contra Costa County Department of Conservation and Development has reviewed and considered the Information contained in the final EIR prior to approving the project; and

3. The final EIR reflects the Contra Costa County Department of Conservation and Developments' independent judgment and analysis.

Lashun C. Cross

Lashun Cross, Senior Planner
Contra Costa County Department of
Conservation and Development
Community Development Division

March 7, 2011

Date

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C H A P T E R 1

Final Environmental Impact Report – Errata

1.1 EXECUTIVE SUMMARY

Table 1-1 has been revised based on responses to comments received on the Draft EIR and to reflect the complete mitigation measures text as listed in Chapter 4 of the Draft EIR as follows:

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.3 Air Quality	AQ-2	Violate any air quality standard or contribute substantially to an existing or projected air quality violation	Significant	Mitigation Measure AQ-2: To minimize particulate matter emissions, the Project shall implement the following fugitive dust control measures suggested by the BAAQMD CEQA Guidelines (2010): BASIC CONTROL MEASURES The following controls shall be implemented along the construction corridor and at Horizontal Directional Drilling (HDD) and conventional bore sites: ▪ Water all active construction areas at least twice daily. ▪ Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard. ▪ Pave, apply water three times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. ▪ Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. ▪ Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. ENHANCED CONTROL MEASURES The following measures shall be implemented at construction sites that are greater than 4.0 acres in area: ▪ All basic control measures listed above. ▪ Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more). ▪ Enclose, cover, water twice a day, or apply (nontoxic) soil	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				binders to exposed stockpiles (dirt, sand, etc.). ▪ Limit traffic speeds on unpaved roads to 15 miles per hour. ▪ Install sandbags or other erosion control measures to prevent silt runoff to public roadways. ▪ Replant vegetation in disturbed areas as quickly as possible. In addition, the Project shall implement the following measures to reduce PM emissions from diesel exhaust: ▪ Grid power shall be used instead of diesel generators where it is feasible to connect to grid power. ▪ The Project specifications shall include 13 CCR Sections 2480 and 2485, which limit the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds, both California- or non-California-based trucks) to 30 seconds at a school or 5 minutes at any location. In addition, the use of diesel auxiliary power systems and main engines shall be limited to 5 minutes when within 100 feet of homes or schools while the driver is resting. ▪ The Project specifications shall include 17 CCR Section 93115, Airborne Toxic Control Measure for Stationary Compression Ignition Engines, which specifies fuel and fuel additive requirements; emission standards for operation of any stationary, diesel-fueled, compression-ignition engines; and operation restrictions within 500 feet of school grounds when school is in session. ▪ A schedule of low-emissions tune-ups shall be developed and such tune-ups shall be performed on all equipment, particularly for haul and delivery trucks. ▪ Low-sulfur fuels shall be used in all stationary and mobile	

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				equipment. In accordance with the BAAQMD CEQA Guidelines (2010), these measures would reduce these emissions to a less-than-significant level. ▪ PM emissions from fugitive dust and diesel exhaust shall be reduced through implementation of Bay Area Air Quality Management District-recommended control measures.	
	AQ-3	Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment under an applicable federal or state ambient air quality standard	Significant	See Mitigation Measure AQ-2	Less than significant
4.4 Biology	BIO-1	(Vegetation) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as an endangered, threatened, candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG and USFWS	Significant Less than significant	Mitigation Measure BIO-1: Reseeding Topsoil from graded and trenched areas shall be stockpiled separately from subsoil. Areas disturbed by construction activities shall have contours returned to pre-project state and topsoil replaced as the top layer. As well as replacing the topsoil with its seed bank, revegetation plantings would consist of species found in surrounding habitats. If seed is purchased, the selection shall be made according to the preferences of the respective landowners. Reseeding shall consist primarily of native grasses and shrubs. The Applicant (Air Products) shall use seed mixes selected with the assistance of a qualified revegetation specialist with demonstrated experience and expertise in revegetation, and shall contain native species that are indigenous to the Project area and the adjacent habitat. If enough native seed is not available, and non-natives must be included in the seed mix, they would be cereal grains that will not persist in the environment. The seed mix shall contain native species known to compete well against invasive nonnative species. This mitigation measure would reduce impacts to less than significant. Areas disturbed by construction activities shall have contours returned to pre-project state and topsoil replaced as the top layer.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				As well as replacing the topsoil with its seed bank, revegetation plantings shall consist of species found in surrounding habitats.	
	BIO-2	(Special-Status Plants)Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as an endangered, threatened, candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG and USFWS	Significant	Mitigation Measure BIO-2: A qualified biologist shall conduct focused floristic for soft bird's-beak, Mason's lilaeopsis, Suisun marsh aster, Delta tule pea, and Congdon's tarplant throughout the Project area prior to initiation of project construction. These surveys are to be conducted during the flowering period for each species. Mason's lilaeopsis (April to November), soft bird's beak (July to November), Suisun marsh aster (May to November), Delta tule pea (May to September), Congdon's tarplant (May to November). If these species are not found within expected impact areas, then no further mitigation shall be required. If plants found in the construction disturbance area can be avoided during construction, then the population(s) shall be protected with construction fencing; worker training on avoidance shall also be conducted. If plants found in proposed construction disturbance areas cannot be avoided, then U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) shall be consulted to develop and approve appropriate mitigation measures before construction can begin. Surveys throughout the Project area. If special-status species are found in the construction disturbance area that can be avoided during construction, then the population(s) shall be protected with construction fencing, and worker training on avoidance shall be conducted. If special-status species are found in proposed construction disturbance areas and cannot be avoided, then the	Less than significant
	BIO-3	(Mammals) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as an endangered, threatened, candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG and USFWS	Significant	Mitigation Measure BIO-3: A biologist with a permit from USFWS and CDFG shall survey construction staging areas prior to construction activities. If individuals of either species are located in the Project area, they shall be trapped according to USFWS and CDFG trapping procedures and transferred to a release site agreed to by USFWS and CDFG. A biological monitor shall be present during construction activities. Impacts on the salt marsh harvest mouse will be mitigated to less	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				than significant by utilizing the following protection measures: ▪ Open trenches in areas where salt marsh harvest mice reside shall be inspected by the biological monitor each morning before construction operations begin. If any wildlife is found in the trench, they shall be trapped according to USFWS and CDFG trapping procedures and transferred to a release site agreed to by USFWS and CDFG, which would eliminate the potential for these species to be affected by trenching operations. ▪ If a mouse is observed on site during construction operations, a salt marsh harvest mouse specialist with a valid state and federal collecting permit will be contacted to relocate the animal out of harm's way prior to any construction activities in the area. The specialist will be approved to conduct such activities on the Project by USFWS and CDFG prior to initiating construction. ▪ Prior to construction activities, a biologist with a permit from USFWS and CDFG shall survey the construction staging areas. ▪ Construction shall be restricted to daylight hours, beginning when the sun rises and ending when the sun goes down, with the exception of HDD operations, which may have 24-hour operations for two or three days. ▪ If individuals of either species are located in the Project area, they shall be trapped according to USFWS and CDFG trapping procedures and transferred to a release site agreed to by USFWS and CDFG. ▪ A biological monitor shall be present during construction activities in the marsh areas. ▪ When Project activities are in or adjacent to suitable habitat, vehicles shall be confined to existing roads where possible and disturbed areas shall be revegetated with brackish marsh	

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				species. ▪ Crews shall use matting, pontoon boards, or other comparable methods whenever feasible to minimize impacts to the existing vegetation. A qualified biologist shall verify the placement of mats before their placement to minimize habitat impacts. Crews shall work exclusively from mat boards and boardwalks to minimize trampling of vegetation in sensitive habitats. ▪ Exclusion fencing, 3 feet in height with no overhang, shall be installed, all along both sides of the Waterfront Road portion of the alignment to segregate the work areas and adjacent brackish marsh habitat. The fence would extend 5 feet beyond the work area and extend into the marsh by three feet to deter mice from entering the work area. ▪ •Silt fencing shall be installed to act as an exclusion fence between work areas and adjacent brackish marsh habitat. ▪ Prior to the commencement of construction activities, a qualified biologist shall flag the location of the exclusion fence. The fence shall be located outside of marsh habitat and above the high-tide line. A qualified biologist shall oversee fence installation, and installation should be timed such that no exceptional high tides have occurred in the week prior to installation. ▪ Soil on both sides of the fence should be compacted after installation. ▪ The exclusion fence shall be maintained during the entirety of the construction activities in the marsh areas. ▪ A qualified biologist shall inspect the fencing daily to ensure the integrity of the fence. If a break in the fence is identified, qualified engineers will repair them immediately on site. Exclusion fences that are damaged and become unsuitable for their intended purpose will be removed and replaced with	

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				new fences. ▪ Within 60 days of completion of construction activities, the onsite biological monitor will prepare a report for the USFWS and CDFG documenting any encounters with sensitive species and the effectiveness and practicality of the mitigation measures. In addition, any special-status species sightings during the project will be submitted for insertions into the CNDDB. ▪ The contractor will be required to use shielded lighting that is directed specifically onto work areas to minimize light spillover to offsite areas.	
	BIO-4	(Special-Status Fish and Aquatic Habitat) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as an endangered, threatened, candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG and USFWS Have a substantial adverse effect on special-status fish and aquatic habitat	Significant	Mitigation Measure BIO-4: Any accidental discharge of drilling mud shall be contained immediately upon discovery. A 100-foot distance is considered the maximum distance sediments could flow, as the shallow water and relatively easy access to McNabney Marsh would assist monitoring, containment, and cleanup in the case of an incident. The pipeline contractor shall prepare a site-specific contingency plan for inadvertent frac-out, which would address how to keep potential impacts from HDD operations to a minimum. This Plan must be approved by the County prior to construction. The site-specific contingency plan shall include components such as: ▪ Cease drilling when return of drilling mud slows or ceases, or when the driller or biological monitor observes a spill. ▪ Employ spill-containment measures (installing silt fencing and/or hay bales). ▪ Notify USFWS, NMFS and CDFG of incident. ▪ Pump drilling mud from the containment area to a drill rig or frac truck.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				▪ Refrain from drilling until containment is completed. The biological monitor shall be on site during the HDD setup procedures and placement of guidance system wires. The biological monitor shall assist the Applicant's contractor with monitoring for frac-outs, containment, and cleanup procedures as needed. Any spill shall be cleaned up and natural revegetation of the area shall be monitored. If revegetation does not occur on its own within one year, the Applicant shall seed and/or plant native vegetation appropriate for the area. The project biologist shall inform the appropriate agencies (Contra Costa County, USFWS, NMFS, CDFG, and/or San Francisco Bay Regional Water Quality Control Board (RWQCB]) of the spill and any associated impacts, and shall monitor the implementation of cleanup procedures required as a result. The contingency plan shall be kept on site during the HDD construction and shall contain contact phone numbers for an emergency coordination in the event of a frac out.	
	BIO-5	(Birds) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as an endangered, threatened, candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG and USFWS Have a substantial adverse effect on resident and migratory birds	Significant	Mitigation Measure BIO-5A: CDFG and USFWS shall be consulted prior to all construction activities. Incidental Take permits shall be obtained prior to construction. Mitigation for frac-out is discussed previously in Mitigation Measure BIO-4. If construction activities (i.e., ground clearing and grading, including removal of trees or shrubs, and activities producing excessive noise) are scheduled to occur during the breeding season (February 1 through August 31), the following measures are required to avoid potential adverse effects on nesting California clapper rail and California black rail: To the extent feasible, perform all construction activities between September 1 and January 31 to avoid rail breeding seasons. If activities cannot be restricted to the nonbreeding season, a qualified biologist shall conduct protocol-level call-count surveys. Rail locations shall be determined and rail territories shall be avoided, or a qualified biologist familiar with clapper rails and black rails shall determine the marsh to be unsuitable rail breeding habitat.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				If breeding rails are detected in the marsh, project activities shall not be conducted in contiguous marsh areas within 700 feet from an identified rail calling center to avoid nest destruction, nest abandonment, and harassment of rails. If the intervening distance between the rail calling center and construction areas is across a major slough channel or other substantial physical barrier and is greater than 200 feet, then project activities may proceed within the breeding season. Within 60 days of completion of construction activities, the onsite biological monitor will prepare a report for the USFWS and CDFG documenting any incidents of encounter and the effectiveness and practicality of the mitigations measures. In addition any special-status species sightings during the project will be submitted for insertions into the CNDDB. To the extent feasible, all construction activities shall be performed between September 1 and January 31 to avoid rail breeding seasons. If activities cannot be restricted to the nonbreeding season, a qualified biologist shall conduct protocol-level call-count surveys. Rail locations shall be determined and rail territories shall be avoided, or a qualified biologist familiar with clapper rails and black rails shall determine the marsh to be unsuitable rail breeding habitat. If breeding rails are detected in the marsh, project activities shall not be conducted in contiguous marsh areas within 700 feet from an identified rail calling center to avoid nest destruction, nest abandonment, and harassment of rails. Mitigation Measure BIO-5B: Pre-construction surveys shall be conducted to identify bird species in the area with the potential to be directly impacted by construction activities. A biological monitor shall be on site during construction to monitor construction sites continuously for bird activities beginning in late February and throughout the construction period, prior to site clearing and grading. If it is determined that construction could result in direct mortality, construction disturbance shall be postponed in the immediate area. Worker awareness training shall be conducted to train construction crews in procedures to follow in the event of	

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				direct impacts to bird species, prior to site clearing and grading. Mitigation Measure BIO-5C: The construction corridor and staging areas shall be routinely inspected for nesting activities throughout construction. Any active raptor nests found in or adjacent to disturbance areas shall be fenced with a 300-foot radius buffer around the nest site. This 300-foot buffer may be reduced if a qualified raptor biologist determines that the nesting raptors are acclimated to people and disturbance, and otherwise shall not be adversely affected by construction activities. At a minimum, the nondisturbance buffer shall be a radius of 100 feet around the nest site. If the nest site is on an adjacent property or property that cannot be accessed, the portion of the buffer that occurs within the project corridor shall be fenced. When construction buffers are reduced in size, the raptor biologist shall monitor distress levels of the nesting birds while the birds nest and construction continues. If it is determined that construction could result in failed reproductive success, construction disturbance shall be postponed in the immediate area until young have fledged. In cases where construction activities cannot be postponed (for safety or significant schedule conflicts), the project biologist shall coordinate with CDFG and USFWS, and at a minimum the 300-foot buffer shall be implemented. shall be flagged and the area immediately around the nest protected from construction equipment. Mitigation Measure BIO-5D: All areas not previously cleared, including all trees to be removed, shall be surveyed prior to initiation of construction-related activities. Any active nests for resident and migratory birds found in or adjacent to disturbance areas shall be flagged and the area immediately around the nest protected from construction equipment. If it is determined that construction could result in indirect mortality, construction disturbance shall be postponed in the immediate area until young have fledged. In situations involving construction activities that cannot be postponed (for safety or significant schedule conflicts), the project biologist shall coordinate with CDFG and USFWS for potential relocation and/or rehabilitation of young birds.	

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	BIO-7	Have a substantial adverse effect on federally protected wetlands as defined by clean water act section 404 (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means Have a substantial adverse effect on wetlands and other waters of the U.S.	Significant	Mitigation Measure BIO-7A: The Applicant shall provide compensation for temporary impacts to waters of the U.S., including wetlands, as required by regulatory permits issued by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and San Francisco Bay Conservation and Development Commission. Temporary impacts shall be mitigated at a 2 to 1 ratio, and the mitigation area shall be monitored and managed for 10 years upon agreement by the responsible agencies once the mitigation size and location are determined. In addition, possible compensation for impacts to wetlands may be a monetary contribution to restoration efforts or enhancement of McNabney Marsh or a nearby wetland preserve. Mitigation Measure BIO-7B: Final project design shall avoid impacts to wetlands and other waters. Areas that are avoided shall be protected through the implementation of BMPs included in the Storm Water Pollution Prevention Plan (SWPPP). A sample SWPPP is included in Appendix D of this Environmental Impact Report. Such measures include the installation of silt fencing, straw wattles, or other appropriate erosion and sediment control methods or devices as well as spill control measures for oil and hydraulic leaks from construction equipment, including checking and maintaining equipment and vehicles daily to prevent leaks of fuels, lubricants, or other fluids. Construction implemented as part of the Project shall avoid or minimize adverse effects on jurisdictional wetlands to the extent practicable. To the extent feasible, final project design shall avoid and minimize effects to wetlands and other waters. Areas that are avoided shall be protected through the implementation of Best Management Practices included in the Storm Water Pollution Prevention Plan.	Less than significant
	BIO-8	(Tree Removal) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	Significant	BIO-8: The Applicant (Air Products) shall obtain tree permits from the Contra Costa County and the City of Martinez and consult with the East Bay Regional Park District prior to initiating construction activities in the area to be cleared for HDD tracking. Trees that must be removed or that could be damaged shall be determined in advance. Fencing shall be installed to protect any trees that can be	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				avoided. BMPs in the sample SWPPP (Appendix D) shall be implemented to minimize impacts from sedimentation, erosion, or spills. Replacement trees shall be planted at site to be determined in consultation with the property owner, who shall also be consulted about the species of the replacement trees. The replacement trees shall be monitored for two years to ensure that they establish successfully.	
	BIO-9	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan	No impact	No mitigation required Mitigation Measure HAZ-2A: 60 days prior to start of Project construction, Air Products shall provide Project site-specific Operating, Maintenance, and Emergency Procedures to Contra Costa County and to the City of Martinez for approval.	No impact
4.5 Cultural Resources	CR-3	Directly or indirectly destroy a unique paleontological resource or site, or a unique geologic feature	Significant	Mitigation Measures CR-3A: The following language shall be incorporated in the Project's condition(s) of approval: If a paleontological resource (fossilized invertebrate, vertebrate, plant, or microfossil) is discovered during excavation, the contractor(s) shall notify a qualified paleontologist, who shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. Excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology current standards. The paleontologist shall notify the contractor to determine the procedures to be followed before construction is allowed to resume at the location of the find. If avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the Project effects. If a paleontological resource (fossilized invertebrate, vertebrate, plant, or microfossil) is discovered, excavations within 50 feet of the find shall be temporarily halted or diverted until a qualified paleontologist examines the discovery, in accordance with Society of Vertebrate Paleontology current standards. The paleontologist	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				shall notify the contractor to determine the procedures to be followed before construction is allowed to resume at the location of the find. If avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the Project effects. CR-3B: If a unique geologic feature (unusual bedrock exposures, isolated or unique outcrops of rare bedrock units, or unique tectonic features) is discovered, the contractor(s) shall notify a qualified geologist, who shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. Excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified or professional geologist, in accordance with the California Board for Geologists and Geophysicists current standards. The geologist shall notify the contractor to determine the procedures to be followed before construction is allowed to resume at the location of the find. If avoidance is not feasible, the geologist shall recommended appropriate measures to protect the resource. Excavations within 50 feet of the find shall be temporarily halted or diverted until a qualified or professional geologist examines the discovery, in accordance with the California Board for Geologists and Geophysicists current standards. The geologist shall notify the contractor to determine the procedures to be followed before construction is allowed to resume at the location of the find. If avoidance is not feasible, the geologist shall recommended appropriate measures to protect the resource.	
	CR-4	Disturb any human remains, including those interred outside of formal cemeteries	Significant	Mitigation Measure CR-4: In the event that Native American human remains or funerary objects are discovered, California Health and Safety Code Section 7050.5(b) shall be implemented. The code states: "In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code." The County Coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the Native American Heritage Commission within 24 hours. The commission has various powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned Most Likely Descendant. PRC Sections 5097.98 and 5097.99 also call for "protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction." A combination of preconstruction worker training and intermittent construction monitoring by a qualified archaeologist shall serve to achieve compliance with this requirement for protection of human remains. Worker training typically instructs workers as to the potential for discovery of cultural or human remains, and both the need for proper and timely reporting of such finds, and the consequences of failure thereof. Once the find has been identified, the archaeologist shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be significant. If Native American human remains or funerary objects are discovered, excavation or disturbance of the site and nearby area shall stop until the County Coroner has determined that all applicable laws have been implemented and has notified the Native American Heritage Commission. A qualified archaeologist shall make the necessary plans for treatment of the find(s) and for mitigation of significant impacts.	
4.6 Geology	GS-1	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known	Significant	Mitigation Measure GS-1A: The Applicant (Air Products) shall conduct a rupture hazard evaluation following CGS' Special Publication 117, Guidelines for Evaluating and Mitigating Seismic	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		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		Hazards in California, published in 2008. It is anticipated that the approach of the investigations would include literature review, geologic interpretation of aerial photographs and on-site field visits, age dating of offset materials, and subsurface exploration (geophysical surveying, continuous coring to bedrock, and/or trenching across the fault zone). The investigation shall include recommendations of special design features to allow the pipeline to accommodate tectonic creep and minor fault offset without rupture. Mitigation Measure GS-1B: Mitigation for GS-1B would be similar to mitigation for Impact GS-1A. Immediately following a seismic event in excess of M5.0 on the Concord Fault (as reported by the Northern California Earthquake Data Center), a qualified Professional Engineer shall inspect the pipeline crossing of the Concord Fault Zone. A "gauge pig" or geometric internal inspection tool shall inspect the pipeline. This type of inspection yields information about any type of deformation (buckling, etc.) of the pipe, which is especially important for areas where humans may not be able to access, such as in a horizontal directional drilling (HDD) area. Additionally, the Applicant shall continuously monitor the pipeline for venting (in this case, from pipe breakage due to shear stress) using the ATMOS® real time leak detection system or equivalent. A qualified Professional Engineer shall review this information to determine if significant damage to the pipeline has occurred. The engineer shall prepare a report that describes the results of the inspection and provides recommendation(s) for necessary corrective action to Contra Costa County Department of Public Works. Upon the County's approval, all recommendations shall be implemented within one year. Additional time for remedial actions shall be granted if the County deems appropriate. Implementation of Mitigation Measures GS-1A and GS-1B would not reduce the likelihood of a large magnitude earthquake occurring on the Concord Fault. Engineering of the pipeline consistent with American Society of Civil Engineers guidelines reduces the potential of a large-magnitude seismic event rupturing the existing pipeline. Inspection of the pipeline following implementation of Mitigation Measure GS-1B would increase the	

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SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				likelihood of potential post-earthquake damage being detected and repaired, thus reducing the exposure time to risks associated with damage to the pipeline should damage occur. Implementation of Mitigation Measures GS-1A and GS-1B, in combination with the previously described engineering, shall reduce the impact of risks associated with fault rupture damage to the pipeline to less than significant. Impacts related to release of hydrogen gas, including potential harm to human beings and the environment, is discussed in Section 4.7, Hazards and Hazardous Materials. Immediately following a seismic event in excess of M5.0 on the Concord Fault, a qualified professional engineer shall inspect the pipelines crossing the Concord Fault Zone and prepare a report recommending corrective action. All recommendations shall be implemented within one year.	
	GS-2	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking	Significant	Mitigation Measure GS-2A: A licensed Professional Engineer shall design all structures constructed as part of the Project in conformance with current engineering practice to ensure that the pipelines and all their appurtenances would resist the effects of earthquake motions. The design shall specifically address the potential secondary effects of seismic shaking, including liquefaction and related phenomenon (e.g., lateral spreading and differential settlement), in areas of rated “moderate” and “high” liquefaction susceptibility Mitigation Measure GS-2B: The operators of the pipelines shall monitor seismic shaking conditions in areas of the site most vulnerable to seismic shaking. The monitoring shall rely on available instrumentation (i.e., accelerographs) monitored by the California Integrated Seismic Network, or accelerographs installed for the Project or available at local refineries. When monitoring indicates that seismic shaking in excess of 0.1 g has occurred in the Project area, a qualified Professional Engineer shall inspect the pipeline alignments to determine if adverse conditions have occurred. These conditions could include pipeline damage to aboveground structures and, particularly, liquefaction in the extensive areas underlain by Bay Mud. The engineer shall prepare a report for the Contra Costa County Department of Public Works	Less than significant

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				that describes the results of the inspection and provides recommendations for any necessary corrective action. Upon the County's approval, all recommendations shall be implemented within one year. Additional time for remedial actions shall be granted if the County deems appropriate. Mitigation Measure GS-2C: A licensed Professional Engineer will design all structures constructed as part of the Project in conformance with current engineering practice to ensure that the pipeline and all its appurtenances would resist the effects of earthquake motions. The design shall specifically address the potential secondary effects of seismic shaking, including liquefaction and related phenomenon (e.g., lateral spreading and differential settlement) in areas of suspected moderate to high liquefaction susceptibility.	
	GS-3	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction	Significant	Mitigation Measure GS-3: In addition to incorporating potential settlement into the design of the pipelines and associated facilities, the operators of the pipelines shall monitor seismic shaking conditions in areas of the site most vulnerable to seismic shaking (i.e., areas underlain by unconsolidated sediments). The monitoring relies on available instrumentation (i.e., accelerographs) monitored by the California Integrated Seismic Network or accelerographs installed for the Project. When monitoring indicates that seismic shaking in excess of 0.3 of the acceleration due to gravity (g) has occurred in the Project area, a qualified Professional Engineer shall inspect the pipeline alignments to determine if adverse conditions, including liquefaction or seismically induced landslides, have occurred. The engineer shall prepare a report for Contra Costa County Department of Public Works that describes the results of the inspection and recommends any necessary corrective action. Upon approval by the County, all recommendations would be implemented within one year. Additional time for remedial actions shall be granted if the County deems appropriate.	Less than significant
	GS-5	Result in substantial soil erosion or the loss of	Significant	Mitigation Measure GS-5A: Trench spoils generated by the HDD process shall be either used for backfill where appropriate or	Less than significant

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SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		topsoil		tested for contaminants and hauled off site to an appropriate disposal facility. Mitigation Measure GS-5B: The Project will be required by county ordinance to establish erosion control measures for grading activities. The requirements of the grading ordinance include the preparation of an Erosion Control Plan. Similarly, the Project shall develop, implement, and meet the requirements of erosion and sediment control plans for the Stormwater Pollution Prevention Plan, as discussed in Section 4.8, Hydrology and Water Quality, Mitigation Measure HWQ-1A. A Storm Water Pollution Prevention Plan shall be developed and implemented.	
	GS-7	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property	Significant	Mitigation Measure GS-7: As required by the California Uniform Building Code, a geotechnical design analysis of the soils and proposed foundation shall be prepared and submitted for approval to Contra Costa County 60 days prior to project construction. All weight-bearing structures overlying plastic soils shall be designed in accordance with standard engineering practice and in concurrence with the geotechnical design analysis to mitigate the effects of expansion and shrinkage of the underlying soils on the proposed pipelines.	Less than significant
4.7 Hazards and Hazardous Materials	HAZ-2	Create a significant hazard through upset and accident conditions involving the release of hazardous materials into the environment	Significant	Mitigation Measure HAZ-2A: Sixty 60 days prior to start of Project construction, Air Products shall provide Project site-specific Operating, Maintenance, and Emergency Procedures to Contra Costa County and to the City of Martinez for approval. Further, to address concerns over potential blast impacts to the surrounding levees, the proposed pipelines shall be designed, constructed, operated and maintained in excess of existing code requirements. Automatic shutoff valves shall be installed on either end of the pipeline, so that flows could be controlled should a leak, fire, or explosion occur. As an explosion from the pipeline would require a confined area for gas to become trapped in, the likelihood of explosion is very small; a more likely scenario would be ignition	Less than significant

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SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				and burning of gas into the atmosphere. In the event of a fire or explosion, the flow of fuel gas and hydrogen would be immediately shut down, thus extinguishing the ignition source. Adjacent roads, railroad bridges, and supporting trestle bridge would be shut down, inspected, and repaired if necessary. This inspection could occur for the levees in the vicinity as well. The presence of EFVs that automatically shut down the flow of gas through the pipeline in the event of a leak would mitigate the potential for an explosion and, thus, mitigate the impact of flooding from damage to levees in the event of an explosion (see Section 4.7.6.2.6 for complete EFV description). Mitigation Measure HAZ-2B: The Construction Contractor shall identify all existing pipelines along the route by contacting the Underground Service Alert (USA) One Call Program 800 number to request that utility owners mark out their underground and overhead utilities, visually determining if any of the underground substructures conflict with the installation of the new pipelines, requesting and reviewing documentation from utility owners, and locating substructures before excavating. Mitigation Measure HAZ-2C: Sixty 60 days prior to start of Project construction, Air Products (the Applicant) shall provide a plan that includes procedures for identifying and preventing accidental damage to third party pipelines. The plan must identify BMPs Best Management Practices from Common Ground Alliance Best Management Practices to include in the plan and also must include a Project-specific emergency response plan with procedures for responding to a release from accidental damage to a third party pipeline. Mitigation Measure HAZ-2D: Air Products shall incorporate into contract specifications language to ensure that all on-site health and safety guidelines and regulations involving hazardous materials handling are followed during construction. Air Products shall prepare a Spill Prevention and Response Plan that includes the hazardous materials (including petroleum products) proposed for use; describes the measures for preventing spills and monitoring hazardous materials; and provides immediate response	

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				to spills. Spill response measures shall address notification procedures for Air Products, safety issues regarding construction personnel and public health, and methods for spill response and cleanup. Mitigation Measure HAZ-2E: 60 days prior to start of Project construction, Air Products shall submit a Contaminated Soils and Water Plan with detailed procedures pertaining to the management of potentially contaminated materials observed during construction. Implementation of this plan would reduce the impact of exposure to contaminated soils to a less-than-significant level. This procedure shall include requiring the contractors to submit health and safety plans, training records, emergency procedures, contact numbers, permits, and certifications. Generally, the materials would be identified visually or by the detection of an odor. The Contaminated Soils and Water Plan shall also include the following general contingency measures and procedures that would be implemented. ▪ Identification of Contaminated Soils or Water. The work crew would suspend operations and notify the on-site Environmental Coordinator (EC). The EC would assess the hazard and obtain samples. The samples may include both soil and water samples. If the material is volatile or semivolatile, air monitoring may be needed to assess worker safety. Based on the assessment, and in consultation with the Site Safety Officer, the work may be suspended until further characterized, remedial action is implemented, or work may be allowed to continue with the appropriate Personal Protective Equipment (PPE). ▪ Remedial Action. If remedial action is necessary, a remedial plan would be drawn up, and the crew would begin to implement the remedial action. If the EC, or the trained crew, deem that a quick response is necessary to contain the material, then the plan may be given orally, and documented at a later time.	

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				▪ Training and Site Security. The work crew would all be HAZWOPER trained (OSHA 40 hour and yearly Recertification per 8 CCR 5192/29 CFR 1910.120). The area affected by the material would be demarcated and secured. No persons without the proper training, medical clearance, and required PPE would be allowed into the area. ▪ Notification Procedures. The EC would document the location, the materials encountered, estimated quantity, and hazard. If the amount exceeds the reportable quantity for that material, the EC would notify the required county and state agencies. ▪ Storage, Removal, and Disposal Procedures. Based on the type, concentration, and quantity of material, the EC would have the material contained and covered on site and sampled for disposal. The material would be labeled and manifested (as hazardous, if necessary) and shipped off site for disposal at an appropriate disposal facility. ▪ Asbestos Procedures. If asbestos-containing transite pipe is encountered, the pipe would be removed by Hazmat-trained employees from the path of the trench and stockpiled to the side. Containment and removal may be carried out simultaneously with the continuation of the trenching. ▪ Hydrocarbon Procedures. If hydrocarbon-contaminated soils are encountered, they too can be stockpiled, sampled, labeled, and removed. If groundwater is encountered with identifiable hydrocarbons, samples would be obtained, and the area of the contamination would be demarcated, and work would continue outside that zone, until remedial measures make it safe to proceed in that area. ▪ Confined Space Entry Procedures. In cases where volatiles may be encountered, air monitoring would be conducted. If it is in a trench or excavation, that area would be considered a permit-required confined space, and no-one would be allowed to enter, until all permit-required confined space	

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SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				procedures are carried out, or the atmosphere has been shown to be safe, and the space is reclassified as nonpermit (8 CCR 5157/29 CFR 1910.146). ▪ Unknowns. In cases where the material is unknown, or suspected to contain more than what is obvious, the area would be shut down until fully assessed. Work may continue in areas that are not affected	
	HAZ-8	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands	Significant	Mitigation Measure HAZ-8: Sixty 60 days prior to start of Project construction, Air Products (the Applicant) shall submit a Fire Protection Plan to Contra Costa County. The plan should include procedures to prevent fires during both the Project construction and operation phases of the Project.	Less than significant
4.8 Hydrology and Water Quality	HWQ-1	Violate any water quality standards or waste discharge requirements	Significant	Mitigation Measure HWQ-1A: Surface water and stormwater contamination shall be minimized through the implementation of a Project-specific SWPPP. A SWPPP is required as a permit requirement of the RWQCB General Construction NPDES Permit (SWRCB 2004). Compliance with the General NPDES Permit requirements would ensure that stormwater discharge meets Basin Plan water quality objectives and that the existing beneficial uses and water quality at the discharge points are maintained and protected. A sample SWPPP, prepared by Air Products for a similar project, is provided in Appendix B. In the Project-specific SWPPP, the Contractor(s) would be required to: ▪ Prevent silt, eroded materials, construction debris, concrete or washings thereof, or hazardous substances from being introduced into any watercourse, stream, or storm drain system. ▪ Prohibit the discharge of water used in hydrostatic testing until it has been tested. Once sampled, the water shall be discharged in accordance with Basin Plan objectives.	Less than significant

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SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				▪ Ensure that water does not cause erosion of soil. ▪ Prohibit the stockpiling of soil, storage of hazardous materials, and stockpiling of construction materials in flood zones during the rainy season, typically between October 15 and April 15. ▪ Ensure that the discharge of soil or other material does not have an adverse effect on receiving waters or cause or contribute to a violation of water quality standards. The Contractor(s) shall be required to comply with NPDES stormwater permitting requirements, (i.e., those provided in the SWRCB Construction General Permit 99 08 DWQ) (SWRCB 2004). In accordance with NPDES stormwater permitting requirements, the Contractor(s) would submit the required Notice of Intent, comply with the Project SWPPP by implementing site-specific BMPs to control and eliminate discharges of construction-related sediments and pollutants in stormwater runoff, into storm drains and any receiving waters. The control measures would also need to be consistent with the Contra Costa Clean Water Program. Air Products would incorporate into construction contract specifications the requirement for measures implemented at the staging areas to contain surface runoff so that contaminants such as oil, grease, and fuel products do not drain toward receiving waters. For example, if heavy-duty construction equipment is stored overnight at the construction staging areas, drip pans would be placed beneath the machinery engine block and hydraulic systems to prevent any leakage from entering runoff or receiving waters reducing the potential impact to less than significant. Also, during trench operations, stockpiles would be surrounded by hay bales, wattles, or other appropriate BMPs to minimize erosion and potential sedimentation of nearby waterways by stormwater runoff. The SWPPP shall include specific protection measures for temporary onsite storage of diesel fuels, chemicals used during drilling, cathode protection testing, or other Project activities. The requirements of the General Permit are intended to be	

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SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				implemented on a year-round basis, not just during the part of the year when probability is high of a precipitation event that results in stormwater runoff. The permit should be implemented at the appropriate level and in a proactive manner during all seasons while construction is ongoing. In conclusion, by performing the Project during the dry season, typically defined as April 15 to October 15, and by developing and implementing a Project-specific SWPPP, impacts may be mitigated to less-than-significant levels for construction activities that could result in degradation of surface water quality in local waterways reducing quality of stormwater runoff. Air Products shall implement Storm Water Pollution Prevention Plan. Mitigation Measure HWQ-1B: If Air Products decides to discharge to land or surface waters project-generated waters such as hydrotest water, drilling fluids, groundwater from dewatering, and water generated from the cleaning of equipment and vehicles, they shall conform with the requirements of the Statewide General WDRs for Discharges to Land with A Low Threat to Water Quality (Low Threat Discharge WDRs). The San Francisco Bay RWQCB regulates discharge of Project-generated waters that are a low threat to water quality through the Low Threat Discharge WDRs. For Air Products to seek coverage under these Low Threat Discharge WDRs, they are required to file with the San Francisco Bay RWQCB the following information (SWRCB 2003): ▪ A Notice of Intent to comply with the terms and conditions of the General WDRs or submit a Report of Waste Discharge ▪ The applicable fees ▪ A Project map ▪ Evidence of CEQA compliance	

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				▪ A DMP Upon review by Regional Board staff, a determination shall be made as to whether or not coverage under these General WDRs is appropriate. Air Products shall be notified by a letter from the Regional Board Executive Officer when coverage under these General WDRs has begun. The DMP shall include a description of discharge location, discharge characteristics, primary pollutants, receiving water, treatment systems, spill prevention plans, and other measures necessary to comply with San Francisco Bay RWQCB discharge limits and other applicable regulations. The plan could be used to cover discharge of fluids collected from dewatering, hydrotesting, and/or horizontal drilling. A Project sampling and analysis program will be prepared as part of the DMP and would be implemented by Air Products along with record keeping and quarterly reporting requirements during dewatering activities. Specifically, the DMP must contain the following: ▪ All pollutants believed to be present in the discharge ▪ Approximate concentration of pollutants in the discharge ▪ Monitoring locations ▪ Monitoring frequencies ▪ Report schedule (dates that reports will be submitted to the San Francisco Bay RWQCB) Material Safety Data Sheets and additional laboratory analysis may be required by the Regional Board to evaluate the discharge and approve the DMP. The DMP will be subject to Regional Board Executive Officer approval. As an option to obtaining the General WDR Permit detailed above, Air Products could explore the feasibility to collect all waters	

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				generated during construction to eliminate discharge to surface waters (MRS 2008). In this scenario, Air Products would investigate options to either reuse the water collected from trench dewatering during the construction activities or haul the collected water to an approved discharge facility. Project-generated water shall not be discharged until it has been tested. Once sampled, the water would be discharged in accordance with the DMP. Typically, the construction specifications would require that the Contractor(s) verifies that the discharge has nondetectable total chlorine residual and a pH greater than 6.5 and less than 8.5 and that the discharge meets all other water quality standards presented in the Basin Plan. The water would be dechlorinated and/or treated as necessary and discharged to the storm drain or creek in accordance with San Francisco Bay RWQCB requirements, with settling and/or filtration to remove the solids. Accordingly, the proposed discharge would not contain other toxic or deleterious substances that would degrade water quality. The Contractor(s) shall be required to monitor the discharge for flow rate, total suspended solids, pH, total chlorine residual, various metals, trihalomethanes, and toxicity. The receiving water would also need to be monitored for hardness, total solids, pH, salinity, metals, and trihalomethanes. The results of the monitoring, any exceedances of discharge limitations, and any corrective actions taken would be reported to the San Francisco Bay RWQCB in the required self-monitoring report. In the event of a discharge containing detectable levels of residual chlorine, Air Products or Contractor(s) would be required to notify the San Francisco Bay RWQCB by telephone within 24 hours and in writing within five days of becoming aware of the discharge. Relative to solids and semisolids generated during the HDD operation, Air Products proposes to landfarm or landfill materials generated. On-site disposal, although allowed under the General Low Threat Discharge Permit for drill cuttings is unlikely to be employed by Air Products because they do not own the land and	

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				the groundwater table is very shallow. Air Products shall conform with the requirements of the Statewide General Waste Discharge Requirements for Discharges to Land with A Low Threat to Water Quality.	
	HWQ-3	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site	Significant	Mitigation Measure HWQ-3: As discussed above under Mitigation Measure HWQ-1, a Project-specific SWPPP shall be developed to define BMPs to minimize or eliminate construction impacts to surface waters. The SWPPP shall define runoff and water management control measures that would minimize erosion or siltation on- or off-site. At the completion of pipeline installation, all disturbed areas without Project improvements shall be restored to pre-construction conditions including topography, hydrology, top soil, and vegetation. All construction debris and surplus materials shall be removed. Pre-construction conditions as well as land use plans, landowner requirements, and the construction SWPPP shall determine further restoration procedures (e.g., erosion control) for the right-of-way. Salvaged top soil from the clearing and trenching operations shall be placed back on the right-of-way to assist in any revegetation. Restoration of disturbed areas at project completion would result in no alteration of long-term drainage patterns that could result in substantial erosion or siltation on- or off-site. Impacts would be less than significant if the final Project plans and specifications include provisions for management of water during construction and restoration of disturbed lands to pre-existing conditions. After installation of the pipelines, the graded areas shall be returned as nearly as possible to their original contours. All other areas shall be restored to preconstruction conditions, including topography, hydrology, topsoil, and, if appropriate, revegetation that focuses on erosion control.	Less than significant

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	HWQ-6	Otherwise substantially degrade water quality	Significant	Mitigation Measure HWQ-6: A site-specific contingency plan for inadvertent frac-out shall be prepared by the pipeline contractor. The plan shall address how potential impacts from HDD operations would be kept to a minimum. The minimum required components of the contingency plan are to: stop drilling when return of drilling mud slows or ceases or a spill (frac-out) is observed by the driller or biological monitor, contain the spill (by measures such as silt fencing/hay bales), pump drilling mud from the containment area to a drill rig or frac truck, and refrain from drilling until containment is completed. During drilling fluid returns and levels shall be visually monitored and real-time downhole pressure shall be monitored such that a potential frac-out is detected immediately. The contingency plan would also include corrective actions during drilling as well as spill contingency procedures, comprised of notification, equipment, supplies, and staffing requirements. Biological monitors, hired by the Applicant, will be required to be present during HDD operations to observe potential frac-out conditions and resulting impacts, along the drill route. Supplies to mitigate a frac-out will need to be available on site including Material Safety Data Sheets for all mud and additives, containment materials such as sand bags and silt fencing, pumps and hoses for remediation, and ready availability of a vacuum truck(s), geotextile booms, and storage tanks. Mitigation Measure BIO-7B and Mitigation Measure BIO-3 provides more specific detail of the prevention measures utilized to avoid drilling mud contamination to surface waters and wetlands and specifically to the salt marsh harvest mouse, respectively. Site-specific contingency plan for inadvertent frac-out. Any accidental discharge of sediments or drilling mud shall be contained immediately upon discovery.	Less than significant
	HWQ-9	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam and/or inundation by seiche, tsunami, or mudflow	Significant	Mitigation Measure HWQ-9A: The Project's aboveground features, including EFVs and block valves and corrosion-testing equipment, shall be placed at an elevation such that long-term operation and maintenance would not be affected by a long-term increase in sea level or alternately, contingency plans shall be developed for future modifications of facilities if necessary.	Less than significant

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				The Project's Operations and Maintenance Plan shall include provisions to minimize the risk of loss due to a long-term rise in sea level in the Project vicinity. Provisions for maintenance of access roads, modification of aboveground facilities, and/or other contingency plans shall be developed to address this concern. The aboveground features of the Project (including excess flow valves, block valves, and corrosion-testing equipment) shall be placed at an elevation such that long-term operation and maintenance would not be affected by a long-term increase in sea level. Provisions for maintenance of access roads, modification of aboveground facilities, and/or other contingency plans shall be developed to address this concern. Mitigation Measure HWQ-9B: The proposed pipelines shall be designed, constructed, operated and maintained in excess of existing code requirements. Automatic shutoff valves shall be installed on either end of the pipeline, so that flows could be controlled should a leak, fire, or explosion occur. In the event of a fire or explosion, the flow of hydrogen would be immediately shut down, thus extinguishing the ignition source. Adjacent roads, railroad bridges, and supporting trestle bridge would be shut down, inspected, and repaired if necessary. This inspection could occur for the levees in the vicinity as well. The presence of EFVs that automatically shut down the flow of gas through the pipeline in the event of a leak would mitigate the potential for an explosion and, thus, mitigate the impact of flooding from damage to levees in the event of an explosion (see Hazards Section 4.7.6.2.6, Operation, Maintenance, and Safety Controls for a complete EFV description). Mitigation Measure HWQ-9C: The position of proposed hydrogen transmission pipeline on the Tesoro pipe bridge shall be relocated from the lower (approximate elevation 14.0 feet NAVD) to the upper (21.0 feet NAVD) rack of the bridge structure. The increased elevation of the pipeline would reduce the potential for inundation of the aboveground segment of the pipe alignment during extreme floods.	

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				Mitigation Measure HWQ-9D: The Applicant shall be responsible to monitor flow levels within Pacheco Creek at the location of the Tesoro pipe bridge to provide warning of high flow conditions which may result in inundation or damage to the bridge and proposed pipeline. When stream flow levels rise above elevation 11.4 feet NAVD (approximate elevation of top of bridge bent caps), automatic shutoff of product flow shall be activated. Following any flood flow event which results in inundation of the bridge (i.e., rising above elevation 11.4 feet NAVD), the bridge shall be inspected by a qualified Professional Engineer to determine if significant damage to the bridge or pipeline has occurred. If significant damage is identified, a corrective action plan shall be prepared and submitted to the Contra Costa County Department of Conservation and Development for review and approval. Any necessary repairs shall be implemented prior to the beginning of the next rainy season (November 1).	
4.11 Noise	NOI-1	Expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies	Significant	Mitigation Measure NOI-1A: The Applicant Air Products shall provide a construction schedule to Contra Costa County Department of Conservation and Mountain View Sanitary District, the City of Martinez, and East Bay Regional Parks District (as the property owners) at least seven days in advance of construction. Mitigation Measure NOI-1B: The Applicant shall incorporate into contract specifications a requirement that daytime noise levels shall not exceed 70 dB Leq due to construction activities at Waterbird Regional Preserve, and that noise levels at the construction site are consistent with local ordinances. Measures that shall be implemented to reduce noise levels to meet this criterion include the following: ▪ Truck operations (e.g., haul trucks) shall be limited to daytime hours, as described in Mitigation Measure NOI-1C. ▪ Best available noise control techniques (including mufflers, intake silencers, ducts, engine closures, and acoustically attenuating shields or shrouds) shall be used for all	Less than significant

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				equipment and trucks as necessary. ▪ If impact equipment (e.g., jack hammers and pavement breakers) is used during Project construction, hydraulically or electric-powered equipment shall be used wherever practical to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used (a muffler can lower noise levels from the exhaust by up to about 10 dB). External jackets on the tools themselves shall be used, where feasible, which could achieve a reduction of 5 dB. Quieter procedures, such as drilling rather than impact equipment, shall be used whenever practical. ▪ Adequate muffling (with enclosures) shall be used to ensure local noise ordinance limits are met. Enclosure opening or venting shall face away from sensitive receptors. Enclosures shall be designed by a registered engineer regularly involved in noise control analysis and design. Operation of any stationary equipment beyond the time limits specified shall meet applicable noise ordinance noise limits. ▪ A contact person shall be designated for responding to construction-related issues, including noise. The name and phone number of the liaison shall be conspicuously posted at construction areas and on all advanced notifications. This person shall take steps to resolve complaints, including periodic noise monitoring, if necessary. Air Products shall incorporate into contract specifications a requirement that daytime noise levels should not exceed 70 decibels equivalent sound level due to construction activities at Waterbird Regional Preserve; and that noise levels at the construction site are consistent with local ordinances. Mitigation Measure NOI-1C: Project construction shall be restricted to the hours of 7:00 am to 5:00 pm or hours specified by the relevant jurisdiction's noise ordinance (refer to Section 4.11.3.3) or	

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SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				permit requirements, except during emergencies, special situations, and possibly HDD operations. Measures that could be implemented to reduce noise levels during nighttime operations include engine controls and enclosures listed in Mitigation Measure NOI 1A and temporary sound barriers listed in Mitigation Measure NOI-4A.	
	NOI-4	Create a substantial temporary or periodic increase in ambient noise levels in the Project vicinity, above levels existing without the Project	Significant	Mitigation Measure NOI-4A: Off-site truck trips to or from Project sites shall be restricted to the hours of 9:00 am until 4:00 pm, Monday through Friday, to reduce traffic noise impacts on the Community Noise Equivalent Level during the more sensitive evening and nighttime hours. Mitigation Measure NOI-4B: Haul trucks shall be operated in accordance with posted speed limits. In addition, truck engine exhaust brake use shall be limited to emergencies. During Project operation, periodic noise increases could occur due to minor routine maintenance activities. These activities would generate a maximum of 14 vehicle trips and 1 small aircraft flight in one day per year, assuming all maintenance activities are scheduled for the same day, which would contribute to existing traffic noise. However, the incremental increase in vehicle trips on area roadways would be much less than 1 percent, such that no perceptible noise increase would occur. This impact would be less than significant, and no mitigation measures would be required.	Less than significant
4.15 Transportation and Traffic	TRANS-1	Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in substantial increase in either the number of vehicle trips, the v/c ratio on roads, or congestion at intersections)	Significant	Mitigation Measure TRANS-1A: 60 days prior to the start of the Project, Air Products shall provide a Traffic Control and Implementation Plan to Contra Costa County for approval. Pavement damaged or trenched during construction of the pipeline would be promptly repaired. Repairs would take place prior to dismantling of traffic controls. This plan shall contain the procedures to be implemented for the application of standard lane closure, signing and control, after-hours maintenance of the construction zone, and emergency	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				access and details for vehicles and pedestrians affected by construction. The site-specific traffic control plan shall include the following elements: ▪ Traffic control for trenching in the shoulder with lane closures ▪ Traffic control for conventional bore construction under Waterfront Road ▪ Types of vehicle and maximum speed limit for each vehicle ▪ Daily truck and vehicle trips ▪ Haul routes ▪ Designated staging/laydown areas for material deliveries ▪ Emergency response time and access ▪ Flag person requirements ▪ Designated worker parking locations Implementation of Mitigation Measure TRANS-1A would reduce the impact of increased traffic during construction to less than significant. Mitigation Measure TRANS-1B: The Applicant (Air Products) shall notify tenants and owners of property within 300 feet of the edge of the construction corridor at least two weeks before construction of the pipeline segment. The business owners will also be provided name and phone number of an Air Products Construction Manager who can be contacted to address questions or concerns during the construction effort. The Applicant shall coordinate with the residents and business owners in the event that access to driveways cannot be maintained. The Project currently does not have any plans to block	

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				any driveways; however, if blocking becomes necessary, the Applicant shall develop plans that will assure access to properties abutting the road or provide alternative arrangements. Mitigation Measure TRANS-1C: The contractor(s), in coordination with the cities and Contra Costa County, shall develop site-specific traffic circulation and detour plans and submit them to the County for review and approval. The contractor(s) shall develop measures to address overlapping construction schedules and activities, lane closures and detours, and truck arrivals and departures. Mitigation Measure TRANS-1D: The Applicant and/or its authorized contractor shall comply with the Excavation, Backfill, and Paving sections of the Applicable Standard Specifications, the Project Drawings and the Traffic Control Plan. Excavation and backfill shall be per the "Typical Trench Detail (Street Construction)" included in the Project Drawings. Pavement restoration shall comply with the Applicable Standard Specifications for Asphalt Concrete materials and paving procedures. Mitigation Measure TRANS-1E: For traffic control for trenching in the shoulder and traffic control for trenching in the travel way that requires a lane closure (and cannot maintain one travel lane in each direction), the contractor shall submit a Worksite Traffic Control Plan showing the traffic control measures and/or details for vehicles and pedestrians affected by the construction at that site. The specific work hours in which the contractor may implement the Worksite Traffic Control Plans will need to be approved by the corresponding agency. Mitigation Measure TRANS-1F: The contractor shall provide traffic control to maintain a safe environment for vehicles traveling through the work zone, <u>including vehicles needing emergency access,</u> and construction workers inside the work zone. The contractor shall submit a Worksite Traffic Control Plan showing the traffic control measures and/or details for vehicles and pedestrians affected by the construction at that site. The pits on each side of the crossing must be protected, and the driver must be made	

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				aware of the construction ahead. The specific work hours in which the contractor may implement the Worksite Traffic Control Plan will need to be approved by the corresponding agency. EBRPD access requirements will be included in the worksite Traffic Control Plan. Mitigation Measure TRANS-1G: The Applicant and/or its contractor shall implement the Traffic Control Plan for the Project during Project construction. In instances where the Traffic Control Plan and the details presented within the Traffic Control Plan conflict with standard specifications and drawings of the local agencies, the more stringent requirements shall apply.	
	TRANS-2	Reduce the capacity of the street system (result in substantial increase in either the number of vehicle trips, the v/c ratio on roads, or congestion at intersections)	Significant	Mitigation Measure TRANS-2: Implementation of Mitigation Measure TRANS-1A shall address impacts from eliminating one or more travel lanes. Implementation of Mitigation Measure TRANS-1A, Traffic Control and Implementation Plan, would reduce the impacts on capacity of the street system during construction to less than significant The contract specifications for individual Construction Contractors shall require coordination and implementation of the Traffic Control and Implementation Plan with the applicable jurisdictions to enforce feasible construction and operations criteria that minimize traffic disruption. These criteria include measures that account for overlapping construction schedules and activities, truck arrivals and departures, lane closures and detours, and the adequacy of on-street staging requirements.	Less than significant
	TRANS-5	Substantially increase potential traffic safety hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment, bicyclists, and pedestrians on public roadways)	Significant	Mitigation Measure TRANS -5: The Applicant or the construction contractor(s) shall be required to obtain the necessary permits because the Project would affect roadways. These permits require the contractors to provide continuity of circulation for vehicular traffic, pedestrians, and bicyclists; reduce the potential for traffic accidents; and ensure worker safety in construction zones. The construction contractor(s) shall coordinate with local agencies to determine haul routes that would minimize truck traffic. Any construction or improvements occurring within county rights-	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				of-way may only occur with an encroachment permit granted by the County's Application and Permit Center. The applicant would identify areas where construction would encroach upon County rights-of-way and obtain an encroachment permit as necessary from the County's Application and Permit Center. Additionally, the Applicant (Air Products or the Construction Contractor) shall keep all roadways along the haul route(s) free of debris resulting from construction related activity. The Applicant shall provide a street sweeping plan, to keep any import, export, excavated material, rock, or other debris off the roadway(s) identified as the haul route(s), which will be subject to the review and approval of the Public Works Department. The street sweeping plan shall be approved prior to commencement of any construction activities. In addition to implementation of Mitigation Measure TRANS 1A (which would reduce the impact on traffic safety hazards associated with traffic flow to a less-than-significant level), the implementation of Mitigation Measure TRANS-5 would reduce incidental hazards anticipated to occur with roadway construction. Contractors shall provide continuity of circulation for vehicular traffic, pedestrians, and bicyclists; reduce the potential for traffic accidents; and ensure worker safety in construction zones. The Construction Contractor(s) shall coordinate with local agencies for required permits and to determine haul routes that would minimize truck traffic near schools, especially before school start times and after dismissal times, when students are traveling to and from schools. Implementation of Mitigation Measure TRANS-1A	
	TRANS-6	Result in inadequate emergency access	Significant	Implementation of Mitigation Measure TRANS-1A-1G	Less than significant
	TRANS-7	Result in inadequate on street parking capacity	Significant	Mitigation Measure TRANS -7: Designated parking areas shall be specified in the Traffic Control and Implementation Plan described in Mitigation Measure TRANS-1.	Less than significant

Table 1-1: Summary of Project Impacts and Mitigation

SECTION	IMPACT NUMBER	IMPACT	LEVEL OF SIGNIFICANCE	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
				Implementation of Mitigation Measure TRANS-1A	
	TRANS-9	Cause a substantial deterioration of the roadway surface as a result of construction activities.	Significant	Mitigation Measure TRANS-9: A pavement monitoring plan would be submitted to The County Public Works Department and to the City of Martinez prior to construction for review and approval. The Applicant shall survey the pavement condition along the haul route (or any routes approved by the Public Works Department) that will be utilized for hauling or construction related activities. The Applicant shall survey the pavement condition along the haul route (or any routes approved by the Public Works Department) that will be utilized for hauling or construction related activities. A pavement condition survey, that includes a preconstruction survey of the haul route or routes utilized, using a method approved by the Public Works Department and the City of Martinez, shall be submitted to the Public Work Department prior to the commencement of any hauling or construction activities. A post-construction pavement survey of the haul route or routes conducted after the end of work shall be utilized by the Public Works Department and the City of Martinez to determine the level of repair, rehabilitation, and reconstruction that may be required of the haul route or routes. Any permanent pavement damage, identified during pavement monitoring, would be restored to its pre-project condition immediately after construction has been completed. In addition, the required pavement repairs and/or rehabilitation measures shall be subject to the review approval of the City of Martinez, and shall be performed to the satisfaction of the City Engineer. Paving the entire width of the street along the pipeline (or paving one lane of traffic) may be required depending on the location and width of the trench, and on the condition of the pavement after completing the work. The Applicant shall bear the cost of repairing, rehabilitating, or reconstructing any roadways used for haul routes or construction to their pre-project conditions, as determined by the pavement surveys. Approval by the City of Martinez shall be requested following the post-construction pavement survey.	Less than significant

1.2 CHAPTER 2 INTRODUCTION

Chapter 2 Introduction, Table 2-1 has been revised to indicate that approval from the San Francisco Bay Conservation and Development Commission is required as follows:

> The installation of the pipeline within the salt marsh and ponds along Waterfront Road and the HDD of McNabney Marsh ~~could~~ would require the Bay Conservation and Development Commission's approval.

Table 2-1 has also been revised to show that Pacheco Creek is owned by both the state and Contra Costa Flood Control District:

> The proposed pipeline route would cross Pacheco Creek, which is owned by the state and Contra Costa County Flood Control District, and would require a lease from the State Lands Commission and Contra Costa County Flood Control District.

Table 1-2: Permits and Approvals

State Agencies		
Agency	**Permit or Approval**	**Action Associated with the Permit or Approval**
California State Lands Commission	Land Use Lease	The proposed pipeline route would cross Pacheco Creek, which is owned by the state and Contra Costa County Flood Control District, and would require a lease from the State Lands Commission and Contra Costa County Flood Control District.
San Francisco Bay Conservation and Development Commission	Project approval	The installation of the pipeline within the salt marsh and ponds along Waterfront Road and the HDD of McNabney Marsh ~~could~~would require the Bay Conservation and Development Commission's approval.

1.3 CHAPTER 3 PROJECT DESCRIPTION

The last paragraph under Backfilling in Section 3.4.1.1 has been revised as follows:

> Motor graders, angle dozers, and modem backfill machines would move dirt from the spoil bank to the trench. The backfilled earth would be compacted to avoid settling in place. For construction in roadways, the surface would be leveled after backfilling and then repaved. For construction in roadways within the city of Martinez, backfilling would conform to City Standard Detail #S-11 A, B, C, and D. All affected surfaces would be restored to pre-existing conditions.

Figure 3-2 Maps A-C have been revised as follows to include the City of Martinez boundary line and to correct the spelling of Moorhen Marsh. Figure 3-2 maps are located on pages 2-53 to 2.57 of Chapter 2, Responses to Comments.

To clarify bridge component terminology, the second sentence of the second paragraph under Installation on Tesoro Pipe Bridge in Section 3.4.1.1 has been revised as follows:

> The ~~base of the bridge~~ top of the bridge bents (i.e., supports) ~~is~~ are at an elevation of approximately ~~12.6~~ 11.4 feet (NAVD88). The elevation of the bridge deck is approximately 14.0 feet and ~~T~~the top of the bridge is at approximately 21 feet (NAVD88) (Figure 3.5).

Figure 3-5 (see page 2-59) has been revised to include the 100-year flood elevation (10.6 feet) to the bottom diagram.

The following has been added at the end of the second paragraph under Section 3.9.2:

> As required by the East Bay Regional Park District, monthly inspections would occur on the portions of the pipeline at Waterbird Regional Preserve. These inspections could include aerial surveys, visual inspections, corrosion detection, and pressure testing.

1.4 SECTION 4.4 BIOLOGICAL RESOURCES

Mitigation Measure BIO-3 has been revised as follows:

> Construction shall be restricted to daylight hours, beginning when the sun rises and ending when the sun goes down, with the exception of HDD operations, which may have 24-hour operations for two or three days.

Mitigation Measure BIO-8 has been revised as follows:

> Prior to initiating construction activities in the area to be cleared for HDD tracking, ~~Air Products~~ the Applicant shall consult with the EBRPD to determine if any trees requiring removal are located on EBRPD property. If trees on EBRPD property require removal, the Applicant shall obtain EBRPD's approval and comply with required conditions of approval. The applicant shall also obtain tree removal permits from the Contra Costa County and the City of Martinez prior to initiating construction activities in the area to be cleared for HDD tracking.

1.5 SECTION 4.7 HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure HAZ-2A has been revised as follows:

> Sixty days prior to start of Project construction, Air Products shall provide Project-specific Operating, Maintenance, and Emergency Procedures to Contra Costa County and to the City of Martinez for approval.

1.6 SECTION 4.8 HYDROLOGY AND WATER QUALITY

For clarification on bridge components and their elevation relative to existing and projected flood elevations, Figure 4.8-3 has been revised.

For clarification on bridge components and their elevation relative to existing and projected flood elevations, the text on page 4.8-34 has been revised as follows:

> The Project intends to run the proposed hydrogen pipeline across Pacheco Creek on the deck of the existing Tesoro pipe bridge. Under existing conditions (i.e., current sea level), the 100-year flood event would not rise to the level of the bottom of the bridge deck. The elevation of the deck is approximately ~~13.3~~ 14.0 feet NAVD and the elevation of 100-year flood at the bridge location is 10.6 feet NAVD (CCCFCWCD 2007). Therefore, the bridge would be about ~~2.7~~ 3.4 feet above the flood flow (see *Figure 4.8-3*, page 2-61 and Figure 3-5).

However, the available modeling of the 100-year flood elevation does not account for expected rise in sea level or the potential for extreme tides. For the purpose of this EIR, a reasonable estimate for the expected rise in sea level by the year 2100 would be approximately 34 to 140 cm (1.1 to 4.6 feet) by the year 2100 (U.S. Department of Transportation 2008; Cayan et. al, 2009). The rise in sea level would also result in a similar rise in the flood flow elevations. At the higher end of the estimate for sea level rise, the 100-year flood flow (10.6 + 4.6 feet = 15.2 feet NAVD) would be above the elevation of the bridge deck (~~13.3~~ 14.0 feet NAVD).

The potential for flooding of the bridge would also be increased during extreme tide events. The estimated extreme (100-year) tide elevation, under existing conditions, would be approximately 9.0 feet NAVD. The hydraulic modeling performed for the estimation of the 100-year flood conditions assumed a tide of 6.6 feet NAVD. The increase in the assumed tide (2.4 feet) would increase the flood flow similarly, raising the flood flow to approximate elevation 13.0 feet NAVD, approximately ~~0.3~~ 1.0 foot below the bridge deck.

If the maximum expected rise in sea level (4.6 feet by 2100) occurs and the 100-year flood event coincides with a 100-year tide, flood waters could rise to elevation 17.6 and the bridge deck would be inundated. However, the top rack of the bridge structure (elevation 21.0 feet) would be above the flood flow. Other potential conditions related to climate change, including expected increases in the frequency of intense storms (and related short-term increases in sea level) and increased flood flows within the Sacramento-San Joaquin River, could additionally increase the frequency and magnitude of damaging floods within Pacheco Creek.

Mitigation Measure HWQ-6 has been revised as follows:

A site-specific contingency plan for inadvertent frac-out shall be prepared by the pipeline contractor. The plan shall address how potential impacts from HDD operations would be kept to a minimum. The minimum required components of the contingency plan are to: stop drilling when return of drilling mud slows or ceases or a spill (frac-out) is observed by the driller or biological monitor, contain the spill (by measures such as silt fencing/hay bales), pump drilling mud from the containment area to a drill rig or frac truck, and refrain from drilling until containment is completed. During drilling fluid returns and levels shall be visually monitored and real-time downhole pressure shall be monitored such that a potential frac-out is detected immediately. The contingency plan would also include corrective actions during drilling as well as spill contingency procedures, comprised of notification, equipment, supplies, and staffing requirements. Biological monitors, hired by the Applicant, will be required to be present during HDD operations to observe potential frac-out conditions and resulting impacts, along the drill route. Supplies to mitigate a frac-out will need to be available on site including Material Safety Data Sheets for all mud and additives, containment materials such as sand bags and silt fencing, pumps and hoses for remediation, and ready availability of a vacuum truck(s), geotextile booms, and storage tanks. Mitigation Measure BIO-7B and Mitigation Measure BIO-3 provides more specific detail of the prevention measures utilized to avoid

drilling mud contamination to surface waters and wetlands and specifically to the salt marsh harvest mouse, respectively.

1.7 SECTION 4.9 LAND USE AND PLANNING

Figure 4.9.1 has been revised as follows to designate areas north of Waterfront Road and I-680 as "Industrial/Environmental Conservation." *Figure 4.9-1* is on page 2-63.

Section 4.9.4.3 is revised as follows:

> The City of Martinez Zoning Ordinance (1975~~undated~~) permits automobile services in thoroughfare commercial, service commercial districts, as well as in neighborhood commercial and central commercial districts with a conditional use permit. The Zoning Ordinance requires all uses to be conditionally permitted within the Industrial/Environmental Conservation Zoning District.

1.8 SECTION 4.11 NOISE

Section 4.11.4.3 under City of Martinez has been revised as follows:

> The City of Martinez Noise Ordinance (Chapter 8.34.020 of the City's Municipal Code) regulates noise in the city (City of Martinez 2004).
>
> Chapter 8.34.010 of the Noise Ordinance states, "It is the purpose of this chapter to implement the goals of the Noise Element of the General Plan [1985] by prescribing standards prohibiting detrimental levels of noise and by providing an effective and readily available remedy for violations." ~~At this time, the City of Martinez General Plan (1995) does not include a Noise Element.~~ The Noise Ordinance identifies the following as acceptable standards for noise levels:

Mitigation Measure NOI-1a in Section 4.11 Noise and Vibration has been revised as follows:

> The Applicant (Air Products) shall provide a construction schedule to the Mountain View Sanitary District, the City of Martinez, and the EBRPD as the property owners at least seven days in advance of construction.

Mitigation Measure NOI-1c in Section 4.11 Noise and Vibration has been revised as follows:

> Project construction shall be restricted to the hours of 7:00 am to 5:00 pm or hours specified by the relevant jurisdiction's noise ordinance (refer to Section 4.11.3.3) or permit requirements, except during emergencies, special situations, and possibly HDD operations. Measures that could be implemented to reduce noise levels during nighttime operations include engine controls and enclosures listed in Mitigation Measure NOI-1B ~~and temporary sound barriers listed in Mitigation Measure NOI-4A~~.

1.9 SECTION 4.15 TRANSPORTATION

Section 4.15.7, Impact TRANS-1, has been revised as follows:

> ~~The proposed Project is scheduled to begin construction in May 2009 and is expected to occur over a four-month period.~~ Construction is anticipated to start in the second or third quarter of 2012 depending on the receipt of all of the permits.

Mitigation Measure TRANS-1F has been revised as follows:

> The contractor shall provide traffic control to maintain a safe environment for vehicles traveling through the work zone, including vehicles needing emergency access, and construction workers inside the work zone. The contractor shall submit a Worksite Traffic Control Plan showing the traffic control measures and/or details for vehicles and pedestrians affected by the construction at that site. The pits on each side of the crossing must be protected, and the driver must be made aware of the construction ahead. The specific work hours in which the contractor may implement the Worksite Traffic Control Plan will need to be approved by the corresponding agency. EBRPD access requirements will be included in the worksite Traffic Control Plan.

Mitigation Measure TRANS-9 will be revised as follows:

> A pavement monitoring plan would be submitted to The County Public Works Department and to the City of Martinez prior to construction for review and approval. The Applicant shall survey the pavement condition along the haul route (or any routes approved by the Public Works Department) that will be utilized for hauling or construction related activities. A pavement condition survey, that includes a preconstruction survey of the haul route or routes utilized, using a method approved by the Public Works Department and to the City of Martinez, shall be submitted to the Public Work Department prior to the commencement of any hauling or construction activities. A post-construction pavement survey of the haul route or routes conducted after the end of work shall be utilized by the Public Works Department and to the City of Martinez to determine the level of repair, rehabilitation, and reconstruction that may be required of the haul route or routes. Any permanent pavement damage, identified during pavement monitoring, would be restored to its pre-project condition immediately after construction has been completed. In addition, the required pavement repairs and/or rehabilitation measures shall be subject to the review approval of the City of Martinez, and shall be performed to the satisfaction of the City Engineer. Paving the entire width of the street along the pipeline (or paving one lane of traffic) may be required depending on the location and width of the trench, and on the condition of the pavement after completing the work. The Applicant shall bear the cost of repairing, rehabilitating, or reconstructing any roadways used for haul routes or construction to their pre-project conditions, as determined by the pavement surveys. Approval by the City of Martinez shall be requested following the post-construction pavement survey.

1.10 SECTION 4.16 UTILITIES

Section 4.16.3.1 has been revised as follows:

> The Project would be located within Central Contra Costa Sanitary District's service area. This district has one secondary treatment facility that can handle up to 55 million gallons per day of dry weather flow and 240 million gallons per day of wet weather flow (Central Contra Costa Sanitary District 2007). In addition, the Project would also be located within the Mountain View Sanitary District's service area. The district manages the McNabney Marsh and the Moorhen Marsh, 151 acres of wetlands alongside Interstate 680 in Martinez.

1.11 CHAPTER 5 OTHER CEQA CONSIDERATIONS

Section 5.4.2 has been revised as follows:

> CEQA Guidelines Section 15126.2(d) also requires that this EIR consider whether some characteristic of the project might encourage or facilitate other activities that could have significant environmental effects, either individually or cumulatively. Hydrogen is a key ingredient in processing crude oil to produce various finished petroleum products. The new pipeline will deliver hydrogen to the refineries for the production of cleaner burning fuels as required by the federal and state Clean Air Act. A fuel-gas pipeline would be co-located with the proposed hydrogen pipeline, to allow for the recycling of this refinery-generated gas for use as a feed source for the production of hydrogen. The Contra Costa Pipeline project, described in Table 5-1, would also supply hydrogen to the Shell Refinery, and when considered cumulatively with the Project would increase hydrogen supply in Contra Costa County.

1.12 CHAPTER 6 ALTERNATIVES

Figure 6-1 (see page 2-65) has been revised to include the City of Martinez Boundary.

C H A P T E R 2

Response to Comments

2.1 Comment and Response Coding Legend

AES Aesthetics

ALT Alternatives

BIO Biological Resources

CI Cumulative Impact

EXE Executive Summary

HAZ Hazards and Hazardous Materials

HWQ Hydrology and Water Quality

INT Introduction

LAN Land Use

NOI Noise and Vibration

OTH Other/non-categorized

PD Project Description

TRA Transportation and Traffic

UTI Utilities and Services

2.2 LIST OF COMMENTERS

- L-1: California State Clearinghouse (S-SCH)
- L-2: California State Lands Commission (S-CASLC)
- L-3: Communities for a Better Environment (O-CBE)
- L-4: Chevron Environmental Management Company (O-CEMC)
- L-5: Contra Costa County Water District (L-CCCWD)
- L-6: Mountain View Sanitary District (L-MVSD)
- L-7: City of Martinez (L-CMCDD)
- L-8: East Bay Regional Park District (L-EBRPD)
- L-9: San Francisco Bay Conservation and Development Commission (S-BCDC)
- L-10: Contra Costa County Public Works Department (LCCCPWD)
- L-11: Contra Costa County Fire Protection District(L-CCCFPD)
- L-12: California Department of Transportation (S-Caltrans)

2.2.1 Letter L-1: S-SCH

This letter from the Governor's Office of Planning and Research State Clearinghouse documents distribution of the Draft Environmental Impact Report (EIR) to state agencies.

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S-SCH

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

CONTRA COSTA
2009 NOV 13 P 2:07
DEPARTMENT OF CONSERVATION
RECEIVED

November 10, 2009

Lashun Cross
Contra Costa County Department of Conservation
651 Pine Street, 4th Floor North Wing
Martinez, CA 94553-1229

Subject: Air Products Hydrogen and Refinery Fuel Gas Pipeline for 2.6 Miles Between Tesoro and Shell Refineries
SCH#: 2009032014

Dear Lashun Cross:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on November 5, 2009. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2009032014) when contacting this office.

Sincerely,

for: Scott Morgan
Acting Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

S-SCH **Document Details Report** S-SCH
State Clearinghouse Data Base

SCH#	2009032014
Project Title	Air Products Hydrogen and Refinery Fuel Gas Pipeline for 2.6 Miles Between Tesoro and Shell Refineries
Lead Agency	Contra Costa County
Type	EIR Draft EIR
Description	A request by Air Products and Chemicals, Inc. to construct and install a 2.6 mile pipeline which consists of two 8 inch diameter pipes for movement of hydrogen and refinery fuel gas between the Tesoro Golden Eagle Refinery and Shell Martinez for making cleaner buring fuels. The pipeline is proposed to be located on various parcels and ultimately connect to existing Air Products Hydrogen plants. Both hydrogen and refinery gas fuel pipelines would be placed within the same trench using open cut trenching, conventional boring and horizontal drilling techniques.

Lead Agency Contact

Name	Lashun Cross		
Agency	Contra Costa County Department of Conservation		
Phone	925-335-1229	*Fax*	
email			
Address	651 Pine Street, 4th Floor North Wing		
City	Martinez	*State* CA	*Zip* 94553-1229

Project Location

County	Contra Costa			
City	Martinez			
Region				
Lat / Long				
Cross Streets	Waterfront Road/Marina Vista			
Parcel No.	159-260-013, 014, -280-010 etc.			
Township	*Range*	*Section*	*Base*	

Proximity to:

Highways	Hwy 680
Airports	No
Railways	SPRR
Waterways	Carquinez Strait, Pacheo Creek
Schools	none-day care 2400 ft
Land Use	Refineries, Railroad, marsh, and roads/Heavy Industrial (H-I)/Open Space (OS), Heavy Industry (HI), Parks and Recreation (PR)

Project Issues Air Quality; Archaeologic-Historic; Biological Resources; Geologic/Seismic; Noise; Toxic/Hazardous; Traffic/Circulation; Water Quality; Wetland/Riparian

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 3; Office of Historic Preservation; Department of Parks and Recreation; San Francisco Bay Conservation and Development Commission; Department of Water Resources; California Highway Patrol; Caltrans, District 4; Air Resources Board, Major Industrial Projects; Regional Water Quality Control Board, Region 2; Department of Toxic Substances Control; California Energy Commission; Native American Heritage Commission; Public Utilities Commission; State Lands Commission

Date Received 09/22/2009 *Start of Review* 09/22/2009 *End of Review* 11/05/2009

Note: Blanks in data fields result from insufficient information provided by lead agency.

STATE OF CALIFORNIA

S-CASLC
ARNOLD SCHWARZENEGGER, *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

CONTRA COSTA

2009 OCT 26 P 2:04

DEPARTMENT OF CONSERVATION AND DEVELOPMENT

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October 23, 2009

File Ref: SCH 2009032014

Lashun Cross
Contra Costa County
Department of Conservation
651 Pine Street, 4th Floor North Wing
Martinez, CA 94553-1229

Subject: Draft Environmental Impact Report (DEIR) Air Products Hydrogen and Refinery Fuel Gas Pipeline for 2.6 Miles Between Tesoro and Shell Refineries

Dear Ms. Cross:

Staff of the California State Lands Commission (CSLC) has reviewed the above referenced document and offers the following comments on the Draft Environmental Impact Report (DEIR). Under the California Environmental Quality Act (CEQA), Contra Costa County is the Lead Agency and the CSLC is the Responsible Agency for this project.

The State acquired sovereign ownership of all tidelands and submerged lands and beds of navigable waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all the people of the State for statewide Public Trust purposes, which include waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. The landward boundaries of the State's sovereign interests in areas that are subject to tidal action are generally based upon the ordinary high water marks of these waterways as they last naturally existed. In non-tidal navigable waterways, the State holds a fee ownership in the bed of the waterway between the two ordinary low water marks as they last naturally existed. The entire non-tidal navigable waterway between the ordinary high water marks is subject to the Public Trust Easement. Both the easement and fee-owned lands are under the jurisdiction of the State Lands Commission (Commission). The locations of the ordinary high and low water marks are often related to the last natural conditions of the river, and may not be apparent from a present day site inspection.

The facts, as we understand them, pertaining to the proposed project, are that the Air Products and Chemicals, Inc., is proposing to construct two new 2.6-mile pipeline networks between two existing hydrogen plants, one of which is located within Contra Costa County. INT-1

INT-1 con't

After review of the information contained in the Draft Environmental Impact Report, the portion of the project involving the existing bed of Pacheco Creek located within Sections 9 and 10, Township 2 North, Range 2 West, MDM and the historic filled bed of Pacheco Creek located within Section 9, Township 2 North, Range 2 West, MDM will be located on State-owned land under the jurisdiction of the Commission. Therefore, the proposed project will require a lease from the Commission.

The CSLC staff has the following comments regarding the Tesoro Pipe Bridge which crosses Pacheco Creek:

HWQ-2

Impact HWQ-9 indicated that damage to the Tesoro Pipe Bridge and pipeline, during flooding, could potentially cause the pipeline to rupture. There is the possibility, although remote, that the rupture of the pipeline could cause an explosion. This would most likely occur from debris flows striking the bridge. It was also stated in the EIR, that there was a possibility, although remote, that this explosion could impact the levee. Mitigation Measure HWQ-9C relocates the pipeline to a higher elevation on the bridge. However, the loss of bridge integrity could result in damage to the pipeline regardless of its location on the bridge. Therefore, mitigation measure HWQ-9C does not appear to mitigate the potential effects of flooding on bridge integrity.

HWQ-3

Mitigation Measure HWQ-9D requires the monitoring of stream flow levels at the Tesoro pipe bridge to warn of high flow conditions, resulting in the automatic shutoff of product flow when stream flow levels rise above 11.4 feet in elevation. At this elevation the bridge would be inundated. The EIR should indicate minimum stream flow levels that would carry potentially damaging debris with the potential to impact the bridge. It should then be determined if Mitigation Measure HWQ-9D will reduce this impact.

Please contact Cheryl Hudson, Public Land Management Specialist, at 916-574-0732, for information concerning our leasing requirements. If you have any questions concerning the environmental review, please contact Mary Ann Hadden at (916) 574-2274 or by e-mail at haddenm@slc.ca.gov.

Sincerely,

Marina R. Brand

Marina R. Brand, Assistant Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
M. Clark, CSLC
M. Hadden, CSLC

2.2.2 Letter L-2: S-CASLC

Responses to Letter from Marina R. Brand—Assistant Chief-Division of Environmental Planning, California State Lands Commission, November 10, 2009

INT-1 *The facts, as we understand them, pertaining to the proposed project, are that the Air Products and Chemicals, Inc., is proposing to construct two new 2.6-mile pipeline networks between two existing hydrogen plants, one of which is located within Contra Costa County.*

After review of the information contained in the Draft Environmental Impact Report, the portion of the project involving the existing bed of Pacheco Creek located within Sections 9 and 10, Township 2 North, Range 2 West, MDM and the historic filled bed of Pacheco Creek located within Section 9, Township 2 North, Range 2 West, MDM will be located on State-owned land under the jurisdiction of the Commission. Therefore, the proposed project will require a lease from the Commission.

RESPONSE: Air Products and Chemicals, Inc (Air Products is proposing to construct two new 2.6-mile pipeline networks between two existing hydrogen plants; however, both existing hydrogen plants would be located within Contra Costa County, not just one as is stated in the comment. Table 2-1 in Chapter 2 Introduction has been revised as follows, The proposed pipeline route would cross Pacheco Creek, which is owned by the state <u>and Contra Costa County Flood Control District</u>, and would require a lease from the State Lands Commission <u>and Contra Costa County Flood Control District</u>.

HWQ-2 *Impact HWQ-9 indicated that damage to the Tesoro Pipe Bridge and pipeline, during flooding, could potentially cause the pipeline to rupture. There is the possibility, although remote, that the rupture of the pipeline could cause an explosion. This would most likely occur from debris flows striking the bridge. It was also stated in the EIR, that there was a possibility, although remote, that this explosion could impact the levee. Mitigation Measure HWQ-9C relocates the pipeline to a higher elevation on the bridge. However, the loss of bridge integrity could result in damage to the pipeline regardless of its location on the bridge. Therefore, Mitigation Measure HWQ-9C does not appear to mitigate the potential effects of flooding on bridge integrity.*

RESPONSE: The existing Tesoro Golden Eagle Refinery (Tesoro) pipe trestle was built in 1999 and based on this date, both design and construction techniques for the trestle used modern codes, design standards, and construction methods that would have considered potential loading from future storm events. The trestle truss sections were designed at an elevation above the high water mark (3 to 8 feet of freeboard) which would greatly reduce the probability of any potential damage to existing pipelines from floating debris in most flood flows from the Pacheco Creek watershed. The bridge deck is approximately 3.5 feet above the 100-year flood elevation. The bent pile structure and depth indicated on the original trestle construction drawings are robust and were designed to withstand significant (i.e., 100-year) storm water flow scenarios

To further address the concern of bridge damage due to floating debris, potential sources of debris must be considered. In historical events, large tree-lined banks or adjacent roadways have been sources of floating timber and automobiles in significant storm water events. Pacheco Creek is lined with marshland vegetation, not generally considered a significant source of debris. Even in a situation where floating debris would be present, the real potential for bridge structure damage would occur when the waterborne debris is flowing at a very high velocity. Flowing debris hits maximum velocity in situations where the storm water is contained within the banks of a river or stream, thus funneling the flow across a relatively small span. At Pacheco Creek the existing Tesoro trestle was designed to extend well above and beyond the creek banks. The elevation at the bottom of the bridge is actually several feet higher than the top of the creek bank elevations. The result of this design is that storm water would spill over the banks of Pacheco Creek before floating debris could reach an adequate height or velocity to cause bridge structure damage. Therefore, the location where the existing Tesoro pipe trestle crosses Pacheco Creek is likely to be damaged by floating debris in a 100-year high water storm event. However, before and after any significant storm water event, the proposed Pacheco Creek pipeline crossing would be thoroughly inspected to ensure that normal operation can be maintained, as required by Mitigation Measure HWQ-9D

HWQ-3 *Mitigation Measure HWQ-9D requires the monitoring of stream flow levels at the Tesoro pipe bridge to warn of high flow conditions, resulting in the automatic shutoff of product flow when stream flow levels rise above 11.4 feet in elevation. At this elevation the bridge would be inundated. The EIR should indicate minimum stream flow levels that would carry potentially damaging debris with the potential to impact the bridge. It should then be determined if Mitigation Measure HWQ-9D will reduce this impact.*

RESPONSE: As stated in the Response to Comment L-2, HWQ-2, the elevation at the bottom of the bridge is several feet higher than the top of the creek bank elevations. The result of this design is that storm water would spill over the banks of Pacheco Creek before floating debris could reach an adequate height or velocity to cause bridge structure damage. As such, Mitigation Measure HWQ-9D, which requires monitoring of flow elevation while flows rise to determine if it rises to 11.4 feet, would reduce impacts caused by high stream flow conditions.

O-CBE

Communities for a
Better
Environment

November 6, 2009
Contra Costa County
Department of Conservation and Development
651 Pine Street, 4th Floor – North Wing
Martinez, CA 94553
Attn: Ruben Hernandez

Re: Air Products Local Area Pipeline Network Project – State Clearinghouse No. 2009032014

Dear Mr. Hernandez,

On Friday November 6th, I emailed comments and attachments from Communities for a Better Environment on the Air Products Local Area Pipeline Network Project Draft Environmental Impact Report. For your convenience, I am also sending a hard copy of the letter and a cd/dvd of the attachments. Please contact me if you have any questions.

In Health,

Adrienne Bloch

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O-CBE

COMMUNITIES FOR A BETTER ENVIRONMENT

November 6, 2009

Contra Costa County
Department of Conservation and Development
651 Pine Street, 4th Floor – North Wing
Martinez, CA 94553
Attn: Ruben Hernandez

Re: Air Products Local Area Pipeline Network Project – State Clearinghouse No. 2009032014

INTRODUCTION

Communities for a Better Environment ("CBE") submits the following comments on the Air Products Local Area Pipeline Network Project Draft Environmental Impact Report ("DEIR"). CBE is a 501(c)(3) environmental health and justice organization in California. CBE is a membership organization with thousands of members throughout California, including hundreds who work, live, and breathe in Contra Costa County ("County"). CBE seeks to protect and enhance the environment and public health by reducing air and water pollution and minimizing hazards in California's urban areas.

PD-1 This proposed Project, that involves a hydrogen and natural gas pipeline to run between the Tesoro and Shell refineries, is part of a larger regional infrastructure project that together with other pipelines, refinery retooling and hydrogen upgrades at the other Bay Area oil refineries would enable the refineries to process heavier and/or more contaminated crude and gas oils.

Several refinery projects are intimately connected with the proposed hydrogen pipeline project. For example, the Contra Costa Pipeline Project, also currently under review, includes a 21.3-mile hydrogen pipeline that would run from Chevron's Richmond refinery to this same Shell refinery in Martinez and to the ConocoPhillips refinery in Rodeo. This project also includes a 2.2-mile natural gas pipeline replacement for the Chevron refinery.[1] The Chevron Hydrogen Renewal project includes, among other things, a significant expansion of Chevron's TKC Hydrocracker and a new and expanded Hydrogen Plant. That proposed hydrogen plant would connect to the proposed Contra Costa pipeline. The ConocoPhillips "Clean Fuels Expansion Project" features a Heavy Gas Oil Hydrocracker, a new Sulfur Recovery Unit and a new and bigger Hydrogen

[1] *See* Contra Costa Pipeline Project DEIR 3-1.

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Plant.[2] Valero announced plans for a new 100 million scf/d Hydrogen Plant. Multiple refinery projects, including most notably Tesoro's new delayed coker, described as being related to processing lower quality oil in a 2007 industry news report.[3] We also anticipate that Air Liquide will propose a pipeline to link the Valero refinery and Shell refineries.

Considering each phase in this endeavor separately submerges environmental considerations such that each project looks relatively minor,[4] and the approach constitutes illegal piecemealing. The County must recirculate the EIR after these projects are analyzed as part of the whole.[5] CBE has now submitted four sets of comments on this piecemealed regional infrastructure project. Attached hereto are the comments submitted by CBE on project phase.[6] OTH-2

Simply, the DEIR project description failed to disclose that the pipeline enables Shell and Tesoro refineries to process energy-intensive, highly polluting lower quality oil[7] and that it is part of a larger regional project; and it failed to analyze the impacts of implementing this project, including the impacts of using lower quality oil. These failures bled into other analysis', such as the project alternatives analysis and cumulative impacts analysis. These failures render the EIR legally inadequate as an informational document.[8] PD-3

Piecemealing begins with an inadequate project description

Piecemealing begins with an inadequate project description. A project under CEQA is "the whole of an action . . . which may be subject to several discretionary approvals by government agencies."[9] "All phases of project planning, implementation, and operation" must be addressed, including the project "characteristics . . . which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively."[10]

The stated "main" purpose of the project is "to allow hydrogen and fuel gas to be shipped between Air Products hydrogen plants at two of the major refineries in Contra Costa County (Shell and Tesoro) for the production of "clean fuels" (e.g., reformulated gasoline and low-sulfur diesel fuel)." (1-1) The first objective is to,

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[2] *See* J. May Comments on ConocoPhillips CFEP DEIR, p. 6.
[3] *See* Expert Report of G. Karras on Contra Costa Pipeline Project, Attachment 20.
[4] *Bozung v. Local Agency Formation Comm'n. of Ventura County* (1975) 13 Cal.3d 263, 283-284.
[5] CEQA requires the lead agency to recirculate an EIR when significant new information is added after the Draft EIR has been noticed and public comment has commenced but before certification. *See* Pub. Res. Code (hereinafter "CEQA") § 21092.1. "As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information." Guidelines § 15088.5(a), *see also Laurel Heights Improvement Assn. of San Francisco v. Regents of the Univ. of California* (1993) 6 Cal. 4th 1112.
[6] These comments include four separate comments on the Contra Costa Pipeline Project submitted by Adrienne Bloch (CBE), Greg Karras, Julia May and Anna Lee; Chevron Hydrogen Renewal Comments submitted by Greg Karras and Adrienne Bloch, and ConocoPhillips "Clean Fuels Expansion Project" comments submitted by Adrienne Bloch and Julia May.
[7] *See* Expert Report of G. Karras on Contra Costa Pipeline Project, ¶ 31.
[8] 14 Cal. Code Regs. (hereinafter "Guidelines") §§ 15063(a)(1), 15126.2(d).
[9] Guidelines §§ 15378(a), 15378(c).
[10] Guidelines §§ 15063(a)(1), 15126.2(d).

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> Maintain adequate available supply of hydrogen for the two refineries (Tesoro and Shell) by connecting the existing Air Products hydrogen plants at both refineries. Both Air Products hydrogen plants often have underutilized hydrogen capacity; the proposed Project would allow hydrogen fuel to be moved between the two refineries as needed to meet production demand and to maintain their current fuel capacities." (1-2)

PD-4 This project description is incomplete. More than simply allowing the refineries to "maintain adequate available supply of hydrogen for the two refineries" the evidence overwhelmingly suggests that the Project is more specifically designed to create a hydrogen network among all five bay area refineries and enable the continuation and acceleration of an existing trend toward more hydrogen-intensive processing of heavier and more contaminated oil."[11] The EIR must fully analyze these impacts. "'An accurate, stable and finite project description is the *sine qua non* of an informative and legally adequate EIR.' However, 'a curtailed, enigmatic or unstable project description draws a red herring across the path of public input.'"[12]

PD-5 Several facts further support this understanding of the abbreviated project description. First, the Shell Refinery is served by at least three hydrogen plants[13] and Tesoro has two. These supplies seem sufficient for current operations.[14] There is no explanation of why a new extremely expensive and environmentally intensive infrastructure would be needed to "meet production demand and to maintain their current fuel capacities"[15] or "maintain adequate supply" unless the refineries plan to change their crude slate to process lower-quality oil, the refineries already presumably have the capacity produce "clean fuels". [16]

PD-6 Second, the primary use of hydrogen in California oil refineries is to process lower quality oil.[17] Hydrogen is used to remove contaminants, such as sulfur, from oil and to improve fuel combustion properties, through various processes including quenching during "hydrocracking".[18]

Refiners have a strong economic incentive to switch to lower quality feedstock because it is cheaper for them.[19] Notably, electric powerplants are prohibited from using dirtier feedstock

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[11] *See* Expert Report of G. Karras on Contra Costa Pipeline Project ¶ 56; A. Lee Comments on Contra Costa Pipeline Project, p. 1., CBE Comments on Contra Costa Pipeline Project, Attachment 3.
[12] *San Joaquin Raptor*, 149 Cal.App.4th at 655 (quoting *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199, 197-98).
[13] *See* Expert Report of G. Karras on Contra Costa Pipeline Project ¶ 28.
[14] *Id.* ¶ 27, 22; ; and note that the DEIR itself seems to support this conclusion.
[15] DEIR 3-2
[16] *See* Expert Report of G. Karras on Contra Costa Pipeline Project ¶ 10 FN 5 ("Accounting for 9% ethanol addition to reformulated gasoline, in-state 'clean gasoline' production exceeds in-state gasoline sales, which are declining even before the new Low Carbon Fuel Standard takes effect.")
[17] *Id.* ¶¶ 10, 31.
[18] *Id.*¶¶ 7-9; *see also* Expert Report of J. May on Contra Costa Pipeline, p. 2.
[19] Expert Report of J. May on the Contra Costa Pipeline Project, p. 2.

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and must move in the other direction, toward cleaner feedstock.[20] This makes sense of this extensive hydrogen project.[21] PD-6 con't

Since low quality (i.e. heavier and more contaminated) oil requires more intensive processing to turn it into higher quality product (such as gasoline) expanding the capacity to process this kind of oil can increase the impacts related to this processing.[22] Moreover, the process of creating the additional hydrogen itself increases pollution emissions because fuel combustion provides the energy needed to make it.[23] And using more hydrogen increases refinery-wide energy consumption because processing lower quality oil requires more energy per barrel, which is associated with increased hydrogen production energy.[24] Lower quality oil refining, which hydrogen enables, increases risk of spill, fire, and explosion hazards at the refinery[25] and increases refinery flaring.[26] Because low quality oil refining is the goal and at least a foreseeable use of the project, it must be analyzed as part of the project. PD-7

Even if there was assurance that the hydrogen would not be used to enable refineries to process low quality oil, the DEIR would have to analyze the impacts of increased hydrogen demand. For instance, use of the pipeline would result in changes in refinery equipment and operation that could increase routine combustion emissions, and affect flare gas systems and increase flaring.[27] Flaring could also increase if the refinery buys hydrogen instead of spending money to maintain and upgrade existing hydrogen systems.[28] Market manipulation affecting gas and diesel fuel markets resulting from the concentration of market power that the pipelines establish is also an issue.[29] These impacts, among others, must be analyzed without regard to lower-quality oil. PD-8

Notably, the DEIR did not but must analyze the impacts of using the hydrogen provided by the pipelines.

The project is piecemealed

Since the pipeline would terminate at the Shell refinery, which is also the first stop of the proposed Contra Costa Pipeline, it was artificial to separate them for environmental review purposes and doing so constituted piecemealing. "A project is treated as a component of a larger project if (1) it is a reasonably foreseeable consequence of the initial project, and (2) the future project will be significant in that it will likely change the scope or nature of the initial project or OTH-9

[20] Id.
[21] *See* Expert Report of G. Karras on Contra Costa Pipeline Project ¶ 28.
[22] *See* Id. ¶¶ 13, 16-21.
[23] *See* Id. ¶ 14.
[24] *See* Id. ¶ 16-18.
[25] *See* Id. ¶ 19.
[26] *See* Id. ¶ 20.
[27] *See* Id. ¶ 34.
[28] *See* Id. ¶ 45.
[29] *See* Id. ¶ 51.

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OTH-9 con't

its environmental effects.[30]" The DEIR completely ignored the implications of the Contra Costa hydrogen pipeline at the Shell refinery and the other numerous related projects. The EIR only references the Contra Costa (or, Praxair) Pipeline by listing it in a table of cumulative projects, and in a sentence in the biological resources section. [31]

Together, the pipelines tie four of the five the Bay Area refineries together into a single hydrogen network, allowing them all to switch to processing low quality oil. This changes the scope of the project.[32]

OTH-10

To determine whether projects are piecemealed, a court considers whether any number of factors are present, including whether the projects "are related in (1) time, (2) physical location, and (3) the entity undertaking the action."[33] Here, the pipeline projects are clearly related in time because they are both in the Draft EIR stage. The Chevron hydrogen project too is still in progress. The projects are related in physical location as well because both pipelines have the Shell refinery as a destination. The Praxair pipeline goes directly from the Chevron hydrogen plant to the shell Refinery. So, two of these three considerations are met squarely. While different entities are undertaking the action, they are doing so in a coordinated manner, and as described above, this project will create an immense market power for those two players. These phases must be analyzed on a project level.

A cumulative impacts analysis cannot replace a project level analysis

CI-11

Importantly, a cumulative impacts analysis cannot replace a project level analysis; a cumulative impacts analysis only considers impacts of the very same type as those resulting from the primary project, while a project level analysis considers the full scope of environmental impacts that may be significant.[34] A project level analysis allows the agency to "mitigate interactive impacts effectively" [35] [36]and to make informed decisions as to whether the benefits of a project outweigh the environmental costs.

The cumulative impacts section does not analyze the impacts of the related projects

CI-12

The silence around the Praxair pipeline in evaluating the impacts of this project is astounding. This silence resounds in the cumulative impacts section. More generally, the cumulative impacts analysis is not correctly performed.

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[30] *Laurel Heights Improvement Assn. v. Regents of the Univ. of California* (1988) 47 Cal.3d at 396; DEIR 2-2.
[31] DEIR 5-6, 5-11.
[32] DEIR 2-6.
[33] *Tuolumne, 155 Cal.App.4th* at 1227.
[34] Guidelines § 15130(a)(1).
[35] *Tuolumne,* 155 Cal.App.4th at 1230-31.
[36] In this case, segmentation will also foreclose clean alternative fuel options. *See* May p. 14.

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Cumulative impacts "refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."[37] "'The significance of a comprehensive cumulative impacts evaluation is stressed in CEQA'... Proper cumulative impacts analysis is vital 'because the full environmental impact of a proposed project cannot be gauged in a vacuum.'"[38]

An EIR must include a "summary of the expected environmental effects to be produced" by those projects that might cause significant cumulative impacts, "with specific reference to additional information stating where that information is available"[39] and "a reasonable analysis of the cumulative impacts of the relevant projects."[40] The EIR does not describe or summarize the impacts of these other projects. "Traffic, noise and air quality" does not provide information sufficient to determine whether the project project's impacts are individually minor but cumulatively considerable.[41] The impact area section does no better because it fails to describe the projects with which the proposed project may cause significant impacts.[42] For instance, no other cumulative project is listed as having "cultural resources" despite the fact that the Shell Contra Costa pipeline is expected to cause the same impacts.[43] The DEIR also makes no attempt to quantify the impacts caused by other projects, and so there is no way to determine whether the additional impact of the proposed project will be significant, and no way to determine whether the imposed mitigation measures will reduce the Project's impacts to a level of insignificance. CI-13

In discussing the growth inducing impacts of increased hydrogen supply, the DEIR similarly makes no mention of the Contra Costa Pipeline that is expected to supply hydrogen to Shell Refinery.[44] Notably, the Contra Costa Pipeline DEIR does not mention the Air Products Pipeline's supply of hydrogen to Shell, either.[45] CI-14

These analysis' conceal the true impacts of the proposed project. The analysis should be corrected and the EIR recirculated.

The project alternatives discussion is misleading and incomplete.

An EIR alternatives analysis "must consider a reasonable range of potentially feasible alternatives that will foster informed decisionmaking and public participation."[46] CEQA prohibits agencies from approving projects as proposed if there are feasible alternatives that ALT-15

[37] CEQA § 21061; *see also* Guidelines §15355.
[38] *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214 (citations omitted).
[39] Guidelines § 15130(b)(4).
[40] Guidelines § 15130(b)(5).
[41] DEIR 5-6.
[42] The exception is biological resources. DEIR 5-11.
[43] Contra Costa Pipeline DEIR, 4.5-23. (The impact was found significant without mitigation.)
[44] DEIR 5-15.
[45] Contra Costa Pipeline DEIR 5-15 – 5-16.
[46] Guidelines § 15126.6(a).

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ALT-15 con't would substantially lessen the significant environmental effects of such projects;[47] the agency should adopt a superior alternative even if it impedes to some degree the project objectives.[48] The DEIR's "no project" alternative is incomplete, and the section fails to analyze a reasonable range of project alternatives.

ALT-16 First, the "no project" alternative discussion is misleading because it does not disclose that without the Project, Shell could provide its own backup capacity, since it is already served by at least three hydrogen plants.[49] [50] Second, the DEIR does not acknowledge that another regional hydrogen network is currently undergoing environmental review that would also serve the Shell Refinery. This omission undermines both the "no project' alternatives analysis requirement – since Shell would still have import/export capabilities without regard to the proposed Project – and the reduced project alternative. Crucially, the DEIR did not describe a single reduced project alternative. The agency must evaluate at least one reduced project alternative if such an alternative is reasonable, feasible, and could achieve the project's stated goals. Reduced Project alternatives are reasonably calculated to reduce the Project's environmental impacts.[51] Here, a pipeline with reduced capacity potentially could reduce the degree to which refineries depended on the pipeline to process low quality oil, thereby avoiding increased pollution. The EIR must consider additional alternatives; ones that are calculated to reduce the impacts of the project.

CONCLUSION

PD-17 This EIR does not fulfill that mandate as an informational document. The Air Products Pipeline Project is part of a regime change to lower quality oil refining in the Bay Area. Processing lower quality oil is associated with increased pollution and increased risk to area communities. CEQA requires that these impacts be disclosed, analyzed and if significant, mitigated. Moreover, the

CI-18 EIR's cumulative impacts section only further conceals the project's impacts, the alternatives are incomplete, and significant and potentially significant impacts still must be discussed. Due to the significant nature of these changes, the EIR should be revised and recirculated before a final EIR is issued.

Sincerely yours,

/s/

Adrienne Bloch
Senior Staff Attorney
Communities for a Better Environment

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[47] *See* CEQA §§ 21002, 21081(a); *County of San Diego v. Grossmont-Cuyamaca Community College Dist.* (2006) 141 Cal.App.4th 86, 98.
[48] Guidelines § 15126.6(b).
[49] *See* Expert Report of G. Karras on Contra Costa Pipeline Project ¶ 28; *see also supra* page 4.
[50] Guidelines § 15126.6 (e)(1), (2).
[51] *See Friends of Eel River v. Sonoma County Water Agency* (2003) 108 Cal.App.4th 859, 872-73.

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2.2.3 Letter L-3: O-CBE

Responses to Letter from Adrienne Block—Senior Staff Attorney, Communities for a Better Environment, November 6, 2009

PD-1 *This proposed Project, that involves a hydrogen and natural gas pipeline to run between the Tesoro and Shell refineries, is part of a larger regional infrastructure project that together with other pipelines, refinery retooling and hydrogen upgrades at the other Bay Area oil refineries would enable the refineries to process heavier and/or more contaminated crude and gas oils.*

RESPONSE: As stated in Chapter 1 Executive Summary, "The purpose of the proposed Project is to allow hydrogen and fuel gas to be shipped between the Air Products hydrogen plants at two of the major refineries in Contra Costa County (Shell and Tesoro) for the production of "clean fuels" (e.g., reformulated gasoline and low sulfur diesel fuel). The proposed hydrogen pipeline would serve to minimize environmental impacts by reducing the need to construct new or expand existing hydrogen plants at each of the refineries and fully utilizing the existing hydrogen plant infrastructure at these refineries. The fuel-gas pipeline would allow excess fuel gas from the refineries to be used as feed for the hydrogen plants, which may serve to reduce the consumption of natural gas at the hydrogen plants and potentially reduce fuel-gas flaring at the refineries. The Draft EIR analyzes the potential impacts from the proposed Project."

OTH-2 *Considering each phase in this endeavor separately submerges environmental considerations such that each project looks relatively minor, and the approach constitutes illegal piecemealing. The County must recirculate the EIR after these projects are analyzed as part of the whole. CBE has now submitted four sets of comments on this piecemealed regional infrastructure project.*

RESPONSE: In *Communities for a Better Environment v. City of Richmond*, the First District Court of Appeal concluded that the City of Richmond's treatment of a new hydrogen pipeline as a separate project in compliance with the California Environmental Quality Act (CEQA) did not constitute illegal piecemealing. The Local Area Pipeline Network Project is a separate project from the Chevron Hydrogen and Contra Costa Pipeline projects under CEQA. See also Response to Comment L-3 PD-1.

PD-3 *Simply, the DEIR project description failed to disclose that the pipeline enables Shell and Tesoro refineries to process energy-intensive, highly polluting lower quality oil and that it is part of a larger regional project; and it failed to analyze the impacts of implementing this project, including the impacts of using lower quality oil. These failures bled into other analysis', such as the project alternatives analysis and cumulative impacts analysis. These failures render the EIR legally inadequate as an informational document.*

RESPONSE: See Response to Comment L-3 PD-1 regarding the purpose of the Project. See Response to Comment L-3 PD-7 regarding use of lower quality oil.

See responses to comments L-3 ALT-15 and L-3 ALT-16 regarding alternatives analysis. See Response to Comment L-3 C-13 regarding cumulative impacts.

PD-4 *This project description is incomplete. More than simply allowing the refineries to "maintain adequate available supply of hydrogen for the two refineries" the evidence overwhelmingly suggests that the Project is more specifically designed to create a hydrogen network among all five bay area refineries and enable the continuation and acceleration of an existing trend toward more hydrogen-intensive processing of heavier and more contaminated oil." The EIR must fully analyze these impacts. "An accurate, stable and finite project description is the sine qua non of an informative and legally adequate EIR. However, a curtailed, enigmatic or unstable project description draws a red herring across the path of public input.*

RESPONSE: See Response to Comment L-3 PD-1.

PD-5 *Several facts further support this understanding of the abbreviated project description. First, the Shell Refinery is served by at least three hydrogen plants and Tesoro has two. These supplies seem sufficient for current operations. There is no explanation of why a new extremely expensive and environmentally intensive infrastructure would be needed to "meet production demand and to maintain their current fuel capacities, or "maintain adequate supply" unless the refineries plan to change their crude slate to process lower-quality oil, the refineries already presumably have the capacity produce "clean fuels".*

RESPONSE: As stated in Chapter 1 Executive Summary, "The proposed Project would deliver hydrogen to the refineries for the production of cleaner burning fuels as required by the federal Clean Air Act. A fuel-gas pipeline would be co-located with the proposed hydrogen pipeline, to allow for the recycling of this refinery-generated gas for use as a feed source for the production of hydrogen." The Project's three main objectives include, 1) Maintain adequate available supply of hydrogen for the two refineries (Tesoro and Shell) by connecting the existing Air Products hydrogen plants at both refineries; 2) Minimize environmental impacts by using existing hydrogen plants that can provide hydrogen to multiple refineries, thus reducing the need to build additional hydrogen plants at the two refineries, and 3) Improve energy efficiency by using excess fuel gas for the production of hydrogen, thereby reducing the need to flare and reducing the amount of natural gas used to produce hydrogen by 1 to 5 millions of standard cubic feet per day (mmscfd)."

PD-6 *Second, the primary use of hydrogen in California oil refineries is to process lower quality oil. Hydrogen is used to remove contaminants, such as sulfur, from oil and to improve fuel combustion properties, through various processes including quenching during "hydrocracking". Refiners have a strong economic incentive to switch to lower quality feedstock because it is cheaper for them. Notably, electric powerplants are prohibited from using dirtier feedstock.*

RESPONSE: Comment noted.

PD-7 *And using more hydrogen increases refinery-wide energy consumption because processing lower quality oil requires more energy per barrel, which is associated with increased hydrogen production energy. Lower quality oil refining, which hydrogen enables, increases risk of spill, fire, and explosion hazards at the refinery and increases refinery flaring. Because low quality oil refining is the goal and at least a foreseeable use of the project, it must be analyzed as part of the project.*

RESPONSE: The proposed project would not change existing and permitted refining processes. Changes to refining processes, including any safety or prevention plans for reducing risk, must be covered under the current permitting conditions for each individual facility.

As stated in Section 5.4.2, CEQA requires an EIR to consider whether some characteristic of the project might encourage or facilitate other activities that could have significant environmental effects. As discussed in Section 5.4.2, if the Project's delivery of hydrogen results in a refiner's need to increase its facility production and therefore its emissions, the facility would continue to be subject to its current BAAQMD air permit emission restrictions. In addition, any previous increase allowed under a facility's existing BAAQMD permits would have been conducted in accordance with BAAQMD's Rules and Regulations. Per the project's objective (listed in both Chapter 1 Executive Summary and Chapter 3 Project Description), low quality oil refining is not included as a goal. The Project would not encourage or facilitate activities resulting in significant environmental effects, and other proposed projects would have no effect on this project.

PD-8 *Even if there was assurance that the hydrogen would not be used to enable refineries to process low quality oil, the DEIR would have to analyze the impacts of increased hydrogen demand. For instance, use of the pipeline would result in changes in refinery equipment and operation that could increase routine combustion emissions, and affect flare gas systems and increase flaring. Flaring could also increase if the refinery buys hydrogen instead of spending money to maintain and upgrade existing hydrogen systems. Market manipulation affecting gas and diesel fuel markets resulting from the concentration of market power that the pipelines establish is also an issue. These impacts, among others, must be analyzed without regard to lower-quality oil.*

Notably, the DEIR did not but must analyze the impacts of using the hydrogen provided by the pipelines.

RESPONSE: See Response to Comment L-3 PD-7.

OTH-9 *A project is treated as a component of a larger project if (1) it is a reasonably foreseeable consequence of the initial project, and (2) the future project will be significant in that it will likely change the scope or nature of the initial project or its environmental effects. The DEIR completely ignored the implications of the Contra Costa hydrogen pipeline at the Shell refinery and the other numerous related projects. The EIR only references the Contra Costa (or,*

Praxair) Pipeline by listing it in a table of cumulative projects, and in a sentence in the biological resources section.

Together, the pipelines tie four of the five the Bay Area refineries together into a single hydrogen network, allowing them all to switch to processing low quality oil. This changes the scope of the project.

RESPONSE: See Response to Comment L-3 OTH-2.

OTH-10 *To determine whether projects are piecemealed, a court considers whether any number of factors are present, including whether the projects "are related in (1) time, (2) physical location, and (3) the entity undertaking the action. Here, the pipeline projects are clearly related in time because they are both in the Draft EIR stage. The Chevron hydrogen project too is still in progress. The projects are related in physical location as well because both pipelines have the Shell refinery as a destination. The Praxair pipeline goes directly from the Chevron hydrogen plant to the shell Refinery. So, two of these three considerations are met squarely. While different entities are undertaking the action, they are doing so in a coordinated manner, and as described above, this project will create an immense market power for those two players. These phases must be analyzed on a project level.*

RESPONSE: See Response to Comment L-3 OTH-2.

CI-11 *Importantly, a cumulative impacts analysis cannot replace a project level analysis; a cumulative impacts analysis only considers impacts of the very same type as those resulting from the primary project, while a project level analysis considers the full scope of environmental impacts that may be significant. A project level analysis allows the agency to "mitigate interactive impacts effectively" and to make informed decisions as to whether the benefits of a project outweigh the environmental costs.*

RESPONSE: Comment noted. The Project EIR analyzed Project-level impacts in Chapter 4 and analyzed cumulative impacts in Chapter 5.

CI-12 *The silence around the Praxair pipeline in evaluating the impacts of this project is astounding. This silence resounds in the cumulative impacts section. More generally, the cumulative impacts analysis is not correctly performed.*

RESPONSE: See Response to Comment L-3 CI-13.

CI-13 *The impact area section does no better because it fails to describe the projects with which the proposed project may cause significant impacts. For instance, no other cumulative project is listed as having "cultural resources" despite the fact that the Shell Contra Costa pipeline is expected to cause the same impacts. The DEIR also makes no attempt to quantify the impacts caused by other projects, and so there is no way to determine whether the additional impact of the proposed project will be significant, and no way to determine whether the imposed mitigation measures will reduce the Project's impacts to a level of insignificance.*

RESPONSE: Chapter 5 Other CEQA Considerations, Table 5-1 lists projects identified by local and regional agencies that could potentially contribute to cumulative impacts by overlapping with Project construction and/or operation. For each project listed, if known, the table includes the planning jurisdiction, a brief Project description, the estimated construction schedule, and potential types of cumulative impacts.

With regard to cumulative impacts to cultural resources, Section 5.3.7 states, "The Project could result in significant impacts on previously unknown historic and paleontological resources and human remains if they are present in the Project area. When viewed in combination with other reasonably foreseeable projects, proposed Project implementation could result in cumulative impacts on cultural resources if any unknown resources were disturbed, and the Project's contribution to these impacts would be cumulatively considerable. The Project's contribution to these significant cumulative impacts would be reduced to less than significant through the implementation of Mitigation Measures CR-1, CR-2, CR-3A, CR-3B, and CR-4."

Section 5.3.2 analyzed each resource for its potential to be cumulatively considerable based on potentially significant impacts from the Project. The analyses reiterate that all potentially significant impacts can be reduced to less than significant levels, as demonstrated in Chapter 4. The analyses in Section 5.3.2 determine that there are no significant cumulative impacts for any of the environmental resources.

CI-14 *In discussing the growth inducing impacts of increased hydrogen supply, the DEIR similarly makes no mention of the Contra Costa Pipeline that is expected to supply hydrogen to Shell Refinery. Notably, the Contra Costa Pipeline DEIR does not mention the Air Products Pipeline's supply of hydrogen to Shell, either.*

RESPONSE: CEQA Section 15126.2(d) requires that a project be considered for its potential to foster economic or population growth, requiring the construction of additional housing either directly or indirectly in the surrounding area. The Project is analyzed for growth-inducing potential in Section 5.4.1. As stated in that section, Project operation would have no impact on population or housing and would not result in any other effects that would lead indirectly to population growth. CEQA Section 15126.2(d) also requires that an EIR consider whether some characteristics of the project might encourage or facilitate other activities that could have significant environmental effects, either individually or cumulatively. The growth-inducing impacts of increased hydrogen supply for the project are considered individually in Section 5.4.2. The first paragraph under Section 5.4.2 on page 5-15 has been revised as follows:

CEQA Guidelines Section 15126.2(d) also requires that this EIR consider whether some characteristic of the project might encourage or facilitate other activities that could have significant environmental effects, <u>either individually or cumulatively</u>. Hydrogen is a key ingredient in processing crude oil to produce

various finished petroleum products. The new pipeline will deliver hydrogen to the refineries for the production of cleaner burning fuels as required by the federal and state Clean Air Act. A fuel-gas pipeline would be co-located with the proposed hydrogen pipeline, to allow for the recycling of this refinery-generated gas for use as a feed source for the production of hydrogen. The Contra Costa Pipeline project, described in Table 5-1, would also supply hydrogen to the Shell Refinery, and when considered cumulatively with the Project would increase hydrogen supply in Contra Costa County.

The commenter also states that the Contra Costa Pipeline DEIR does not make mention of the Air Products Pipeline Project's hydrogen supply. This comment is noted but is not applicable to this Draft EIR.

ALT-15 *An EIR alternatives analysis "must consider a reasonable range of potentially feasible alternatives that will foster informed decisionmaking and public participation." CEQA prohibits agencies from approving projects as proposed if there are feasible alternatives that would substantially lessen the significant environmental effects of such projects; the agency should adopt a superior alternative even if it impedes to some degree the project objectives. The DEIR's "no project" alternative is incomplete, and the section fails to analyze a reasonable range of project alternatives.*

RESPONSE: Chapter 6 Alternatives provides the following: 1) a discussion of three alternatives that were considered but withdrawn from further analysis based on their level of infeasibility and/or their failure to meet overall Project objectives (pursuant to CEQA Guidelines Section 15126.6c); 2) analysis of two alternatives to the proposed Project; 3) analysis of the No Project alternative; and 4) determination of the environmentally superior alternative. These items fulfill the CEQA Guidelines (Section 15126.6(d)) which encourage the identification of a reasonable range of feasible alternatives along with sufficient assessment of these alternatives which results in a comparative analysis for consideration by decision makers.

As discussed in Section 6.6 and as shown in Table 6-1, the proposed Project, when compared against the No Project Alternative, the McNabney Reroute Alternative, and the Southern Alignment Alternative, is determined to be the environmentally superior alternative. The proposed Project has no significant impacts on resources, and it fulfills all Project objectives.

Section 6.5.2.1 analyzes the No Project Alternative and clearly states that potential impacts associated with the Project would be avoided, but none of the Project objectives would be met. It also indicates that the proposed Project, with implementation of appropriate mitigation measures, is designed to meet Project objectives while not causing any significant environmental impacts.

ALT-16 *First, the "no project" alternative discussion is misleading because it does not disclose that without the Project, Shell could provide its own backup capacity, since it is already served by at least three hydrogen plants. Second, the DEIR does not acknowledge that another regional hydrogen network is currently*

undergoing environmental review that would also serve the Shell Refinery. This omission undermines both the "no project" alternatives analysis requirement – since Shell would still have import/export capabilities without regard to the proposed Project – and the reduced project alternative. Crucially, the DEIR did not describe a single reduced project alternative. The agency must evaluate at least one reduced project alternative if such an alternative is reasonable, feasible, and could achieve the project's stated goals. Reduced Project alternatives are reasonably calculated to reduce the Project's environmental impacts. Here, a pipeline with reduced capacity potentially could reduce the degree to which refineries depended on the pipeline to process low quality oil, thereby avoiding increased pollution. The EIR must consider additional alternatives; ones that are calculated to reduce the impacts of the project.

RESPONSE: Including any information regarding product capacity at the Shell Oil Refinery capacity or other currently proposed projects would be considered speculation and therefore inappropriate for inclusion in the No Project Alternative analysis for this Project.

The CEQA Guidelines does not explicitly require the detailed evaluation of a reduced project alternative. Section 15126.6 requires an EIR describe a reasonable range of alternatives, but does not direct an EIR to consider every conceivable alternative to a project. The range of potential alternatives must include those that could feasible accomplish the basic project objectives and could substantially lessen at least one significant effect. Alternatives can be eliminated from detailed consideration in an EIR under the following conditions: failure to meet most of the basic project objectives; infeasibility; or inability to avoid significant environmental impacts.

Section 6.5.1 describes three alternatives considered but withdrawn from analysis, two of which are reduced alternatives (the Trucking Hydrogen to Refineries Alternative and the Hydrogen Production Facilities at Each Refinery Alternative). Both alternatives would be expected to meet Project objectives, but would have considerably greater environmental impacts than the proposed Project. These alternatives were not selected for detailed consideration in the Draft EIR because of the inability to avoid significant environmental impacts, in compliance with the CEQA Guidelines.

With regard to increased pollution, as described in responses to comments L-3 PD-1 and L-3 PD-5, the purpose of the proposed Project is to allow hydrogen and fuel gas to be shipped between the Air Products hydrogen plants and Shell and Tesoro for the production of "clean fuels" (e.g., reformulated gasoline and low sulfur diesel fuel) and would minimize environmental impacts by reducing the need to construct new or expand existing hydrogen plants at the refineries and use the existing hydrogen plant infrastructure at these refineries. The fuel-gas pipeline would allow excess fuel gas from the refineries to be used as feed for the hydrogen plants, which may serve to reduce the consumption of natural gas at the hydrogen plants and potentially reduce fuel-gas flaring at the refineries. As stated in Section 3.1, Project Objectives, the Project would result in the following: 1) maintenance of an adequate available supply of hydrogen

for the two refineries; reduction of environmental impacts by using existing hydrogen plants that can provide hydrogen to multiple refineries; and improvement of energy efficiency by using excess fuel gas for the production of hydrogen, thereby reducing the need to flare and reducing the amount of natural gas used to produce hydrogen by 1 to 5 million standard cubic feet per day (mmscfd).

PD-17 *This EIR does not fulfill that mandate as an informational document. The Air Products Pipeline Project is part of a regime change to lower quality oil refining in the Bay Area. Processing lower quality oil is associated with increased pollution and increased risk to area communities. CEQA requires that these impacts be disclosed, analyzed and if significant, mitigated.*

RESPONSE: See responses to comments L-3 OTH-2 and L-3 PD-7.

CI-18 *Moreover, the EIR's cumulative impacts section only further conceals the project's impacts, the alternatives are incomplete, and significant and potentially significant impacts still must be discussed. Due to the significant nature of these changes, the EIR should be revised and recirculated before a final EIR is issued.*

RESPONSE: See Response to Comment L-3 CI-13 regarding cumulative impacts. See responses to comments L-3 ALT-15 and L-3 ALT-16 regarding alternatives analysis. Recirculation of the EIR would not be required.

O-CEMC

Chevron

CONTRA COSTA
2009 OCT 30 A 10 34
DEPARTMENT OF CONSERVATION AND DEVELOPMENT

Lee Higgins, PG
Environmental
Project Manager

Chevron Environmental Management Company
6111 Bollinger Canyon Road
BR1Y/3484
San Ramon, CA 94583
Tel 925 543 2365
Fax 925 543 2323
leehiggins@chevron.com

October 29, 2009

Stakeholder Correspondence-Contra Costa County
Air Products Local Area Pipeline Network Project - Draft Environmental Impact Report

Ms. Lashun Cross
Contra Costa County Department of Conservation and Development
651 Pine Street
4th Floor North Wing
Martinez, California 94553-1229

Subject: **Comment for the Air Products Local Area Pipeline Network Project**
Draft Environmental Impact Report
Chevron Environmental Management Company
Historic Pipeline Alignment-Bakersfield to Richmond

Dear Ms. Cross:

On behalf of Chevron Environmental Management Company (CEMC), Science Applications International Corporation (SAIC) recently reviewed the Draft Environmental Impact Report (EIR) for the Air Products Local Area Pipeline Network Project (the project). The purpose of this letter is to notify the Contra Costa County Department of Conservation & Development (DCD), and other project stakeholders, as to the location of formerly active crude-oil transportation pipelines with respect to the project area (see Figure 1). The intent is that the pipeline location information will be incorporated into the Final EIR for the project.

HAZ-1

Former Tidewater Associated Oil Company (TAOC) and Old Valley Pipeline (OVP) crude-oil pipelines existed in the area of the proposed project. These two former pipeline systems are collectively referred to as the CEMC Historical Pipeline Portfolio (HPP). Specifically, a portion of the proposed project pipeline installation location includes a right of way (ROW) associated with the former TAOC pipeline system. The former TAOC ROW lay within the Union Pacific Railroad (UPRR) ROW. The TAOC pipeline system was constructed in 1907 and transmitted heavy crude oil from Bakersfield to the Bay Area. The TAOC system operated until the 1970s.

HAZ-2

Evidence of historic releases associated with the formerly active pipelines is sometimes identified during the course of underground utility work and other subsurface construction activities near the former pipeline ROWs. Generally, residual weathered crude oil associated with TAOC's historical pipeline operations can be observed visually; however, analytical testing is necessary to confirm that the likely source of the affected material is associated with the former TAOC system. Analytical results from human health risk assessments performed by CEMC at several known historical pipeline release sites confirm that soil affected by the historic release of product from the pipelines is non-hazardous, and does not pose significant health risks.

O-CEMC

Ms. Lashun Cross – Contra Costa County DCD
October 29, 2009
Page 2

HAZ-2, con't

OTH-3

CEMC has identified the area where the proposed project pipeline route will parallel the former TAOC alignment (see Figure 1). CEMC recommends that the project proponent be prepared to address residual weathered crude oil from the former TAOC pipeline during subsurface construction activity. This potentiality is easily managed with some advanced planning. CEMC would appreciate being informed of project progress, encountered petroleum, and any additional planned construction and land development projects in the vicinity of the former TAOC and OVP alignments.

For more information regarding the Historical Pipeline Portfolio–Bakersfield to Richmond, please visit http://www.hppinfo.com/. If you have any questions or require additional information, please call SAIC consultants Tom Burns at (916) 979-3748 or Mohamed Ibrahim at (916) 979-3828 regarding the historical TAOC alignment.

Sincerely,

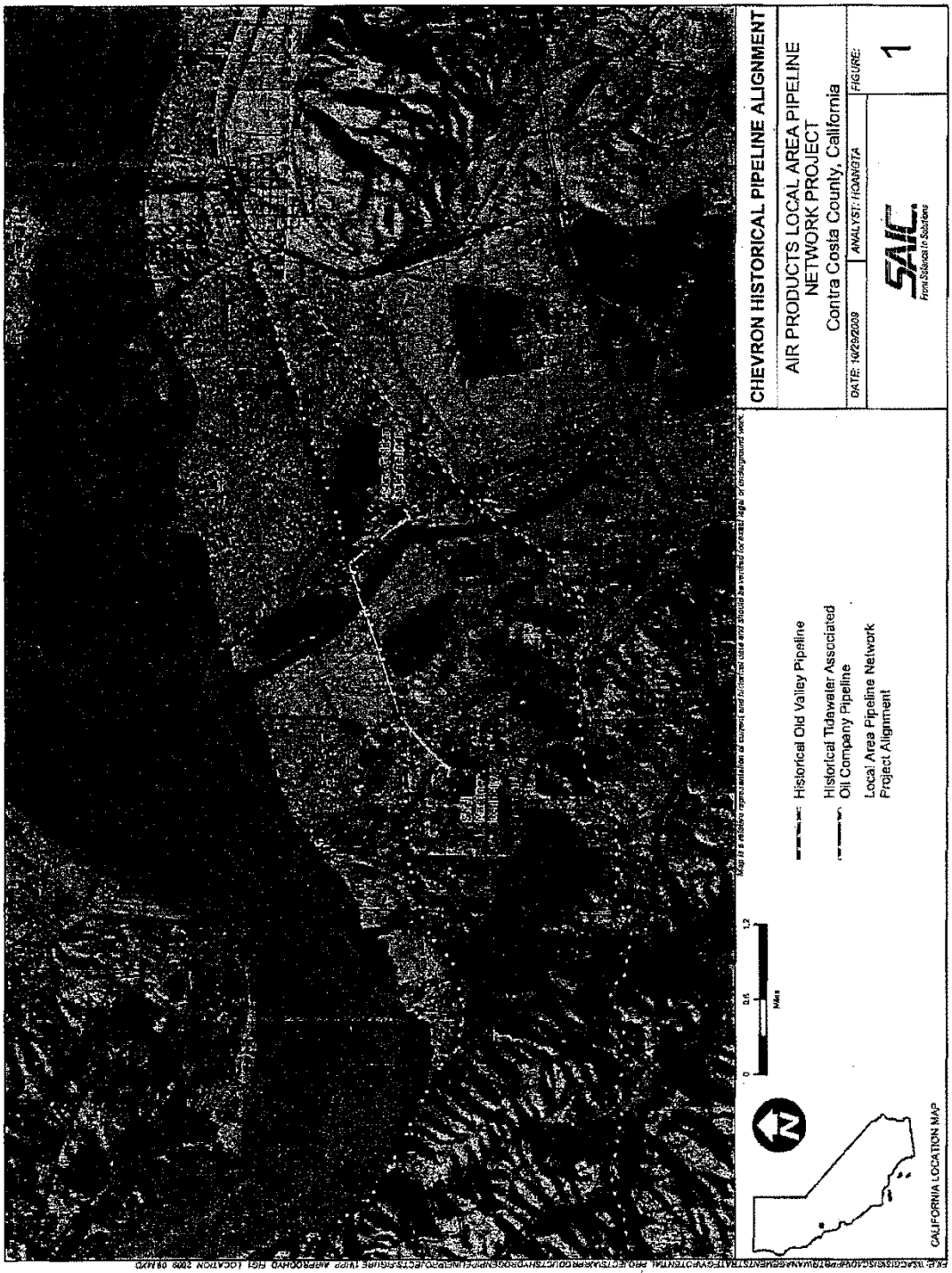
Lee Higgins

LH/klg

Enclosures:
Figure 1. Chevron Historical Pipeline Alignment – Air Products Local Area Pipeline Network Project

cc: Mr. Tom Burns – SAIC
3800 Watt Avenue, Suite 210, Sacramento, California 95821
Mr. Mohamed Ibrahim – SAIC
3800 Watt Avenue, Suite 210, Sacramento, California 95821
Mr. Mike Jenkins – SAIC (letter only)
3800 Watt Avenue, Suite 210, Sacramento, California 95821

O-CEMC


CHEVRON HISTORICAL PIPELINE ALIGNMENT
AIR PRODUCTS LOCAL AREA PIPELINE NETWORK PROJECT
Contra Costa County, California
DATE: 10/29/2009
ANALYST: HOANGTA
FIGURE:
1
SAIC
Historical Old Valley Pipeline
Historical Tidewater Associated Oil Company Pipeline
Local Area Pipeline Network Project Alignment
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1.2
Miles
CALIFORNIA LOCATION MAP

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2.2.4 Letter L-4: O-CEMC

Responses to Letter from Lee Higgins-Environmental—Project Manager, Chevron Environmental Management Company, October 29, 2009

HAZ-1 *On behalf of Chevron Environmental Management Company (CEMC), Science Applications International Corporation (SAIC) recently reviewed the Draft Environmental Impact Report (EIR) for the Air Products Local Area Pipeline Network Project (the project). The purpose of this letter is to notify the Contra Costa County Department of Conservation & Development (DCD), and other project stakeholders, as to the location of formerly active crude-oil transportation pipelines with respect to the project area (see Figure 1). The intent is that the pipeline location information will be incorporated into the Final EIR for the project.*

Former Tidewater Associated Oil Company (TAOC) and Old Valley Pipeline (OVP) crude-oil pipelines existed in the area of the proposed project. These two former pipeline systems are collectively referred to as the CEMC Historical Pipeline Portfolio (HPP). Specifically, a portion of the proposed project pipeline installation location includes a right of way (ROW) associated with the former TAOC pipeline system. The former TAOC ROW lay within the Union Pacific Railroad (UPRR) ROW. The TAOC pipeline system was constructed in 1907 and transmitted heavy crude oil from Bakersfield to the Bay Area. The TAOC system operated until the 1970s.

RESPONSE: The information presented in the comment on the location and history of the former Tidewater Associated Oil Company (TAOC) and Old Valley Pipeline (OVP) crude oil pipelines is noted and appreciated.

HAZ-2 *Evidence of historic releases associated with the formerly active pipelines is sometimes identified during the course of underground utility work and other subsurface construction activities near the former pipeline ROWs. Generally, residual weathered crude oil associated with TAOC's historical pipeline operations can be observed visually; however, analytical testing is necessary to confirm that the likely source of the affected material is associated with the former TAOC system. Analytical results from human health risk assessments performed by CEMC at several known historical pipeline release sites confirm that soil affected by the historic release of product from the pipelines is non-hazardous, and does not pose significant health risks.*

CEMC has identified the area where the proposed project pipeline route will parallel the former TAOC alignment (see Figure 1). CEMC recommends that the project proponent be prepared to address residual weathered crude oil from the former TAOC pipeline during subsurface construction activity.

RESPONSE: The comment indicates that the former TAOC and OVP pipelines are potential sources of a crude oil release. The age and long history of use of the pipelines would support the conclusion that releases may have occurred. The comment further discloses that the Chevron Environmental Management Company has identified "several known historical pipeline release sites" in the

area of the pipelines and that testing indicates that the released materials are "non-hazardous". The specific location of the sites and results for analytical testing were not included in the comment. The information presented by the commenter suggests that residual oil may be encountered during grading or other activities in construction areas of the proposed Project adjacent to the pipelines. The potential for encountering contaminated soil or groundwater related to previous releases during Project construction was evaluated in Impact HAZ-2E and would be mitigated by Mitigation Measure HAZ-2E.

OTH-3 *CEMC would appreciate being informed of project progress, encountered petroleum, and any additional planned construction and land development projects in the vicinity of the former TAOC and OVP alignments.*

RESPONSE: The Applicant would be responsible for notifying and negotiating any construction activities with impacted owners, including construction within the right-of-way for the existing pipelines. Section 3.1.4.1 states, "Pre-construction activities would include notifying landowners and regular users of public lands along the right-of-way of the planned activities. Landowners shall be notified via mail by the Applicant (Air Products)." In addition, Mitigation Measure TRANS-1B states, "The Applicant (Air Products) shall notify tenants and owners of property within 300 feet of the edge of the construction corridor at least two weeks before construction of the pipeline segment. The business owners will also be provided name and phone number of an Air Products Construction Manager who can be contacted to address questions or concerns during the construction effort." In addition, Mitigation Measure HAZ-E states, "Sixty days prior to start of Project construction, Air Products shall submit a Contaminated Soils and Water Plan with detailed procedures pertaining to the management of potentially contaminated materials observed during construction. This procedure shall include requiring the contractors to submit health and safety plans, training records, emergency procedures, contact numbers, permits, and certifications."

L-CCWD

CONTRA COSTA
WATER DISTRICT

1331 Concord Avenue
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Concord, CA 94524
(925) 688-8000 FAX (925) 688-8122
www.ccwater.com

CONTRA COSTA

2009 NOV -9 P 1:12

DEPARTMENT OF CONSERVATION AND DEVELOPMENT

November 5, 2009

Via Facsimile (925) 335-1229
Hard Copy to Follow

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John A. Burgh

Walter J. Bishop
General Manager

Lashun Cross
Contra Costa County Department of Conservation and Development
651 Pine Street, 4th Floor- North Wing
Martinez, CA 94553

Subject: Draft EIR: The Proposed Air Products 2.6 Mile Hydrogen and Refinery Fuel Gas Pipeline Project (State Clearinghouse #2009032014)

Dear Ms. Cross:

Contra Costa Water District (CCWD) has reviewed the Draft EIR for the proposed Air Products 2.6 Mile Hydrogen and Refinery Fuel Gas Pipeline Project (State Clearinghouse #2009032014) and provides the following comment.

CCWD owns and operates a reclaimed water line that appears to be located in close proximity to the proposed Hydrogen and Refinery Fuel Gas Pipeline alignment. A map illustrating the location of CCWD's pipelines on the indicated parcels is attached for your information. The draft EIR should include conditions to ensure that construction and operation of the proposed Air Product Pipeline alignment does not adversely impact CCWD reclaimed water line. CCWD appreciates the opportunity to comment on this project and should there be any questions, please do not hesitate to contact me at (925) 688-8119. HWQ-1

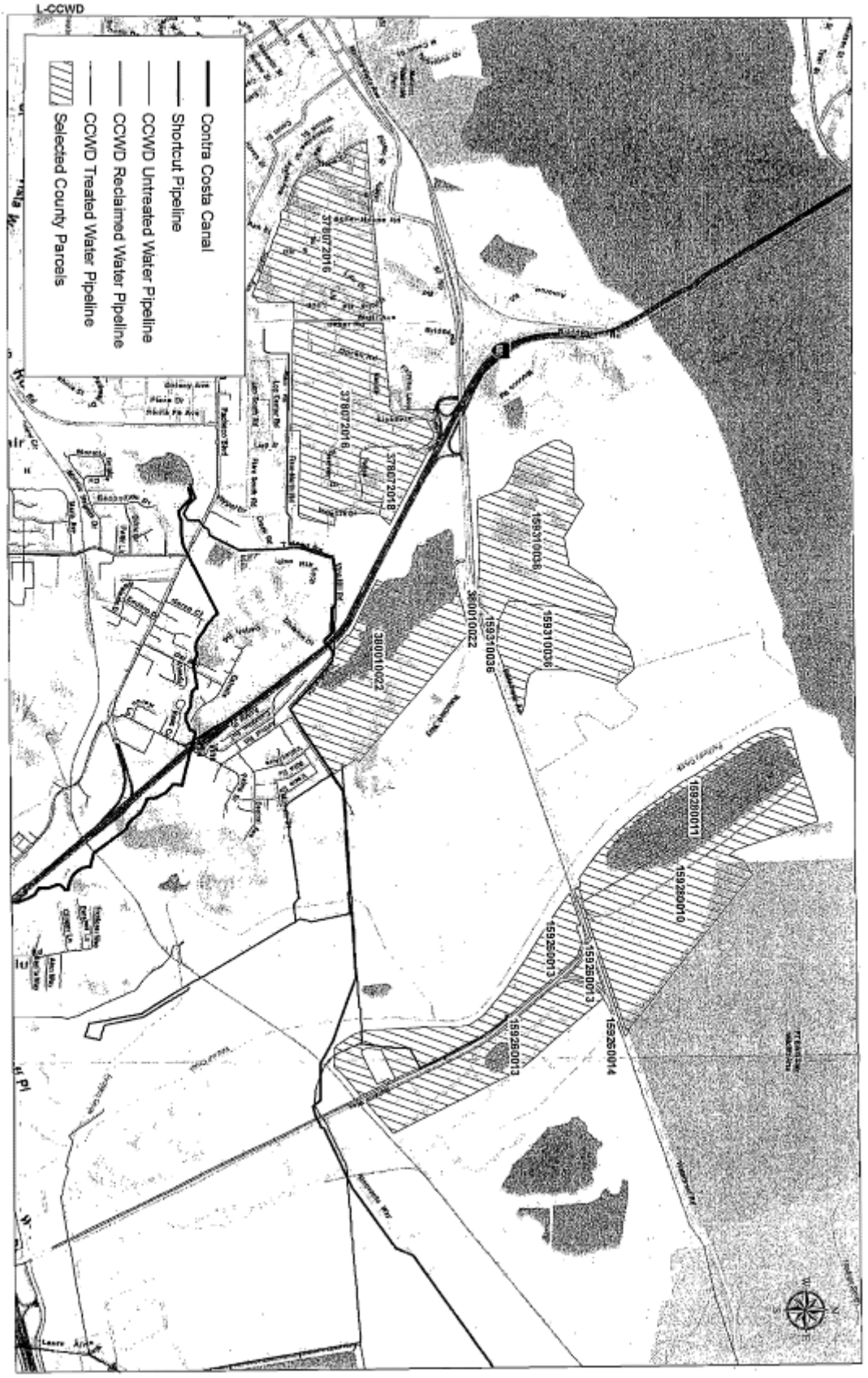
Sincerely,

Mark A. Seedall

Mark A. Seedall
Principal Planner

MAS/rlr

Attachment - Map


L-CCWD
Contra Costa Canal
Shortcut Pipeline
CCWD Untreated Water Pipeline
CCWD Reclaimed Water Pipeline
CCWD Treated Water Pipeline
Selected County Parcels
37807201B
37807201B
37807201B
159310036
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380010022
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159280011
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2.2.5 Letter L-5: L-CCWD

Responses to Letter from Mark A. Seedall—Principal Planner, Contra Costa Water District, November 5, 2009

HWQ-1 *A map illustrating the location of CCWD's pipelines on the indicated parcels is attached for your information. The draft EIR should include conditions to ensure that construction and operation of the proposed Air Product Pipeline alignment does not adversely impact CCWD reclaimed water line. CCWD appreciates the opportunity to comment on this project and should there be any questions, please do not hesitate to contact me at (925) 688-8119.*

RESPONSE: The information on the Contra Costa Water District (CCWD) reclaimed water line presented in the comment letter is noted and appreciated. As stated on page 4.7-16, Air Product's construction work process would include a construction safety plan and a site-specific safety plan. Air Products would also implement a Health and Safety Plan. These plans would address safety procedures (including adherence to the Underground Service Alert system) for excavation at the location of existing utilities which are located within the construction area, including the CCWD reclaimed water line. The procedures for safety inspections and response during operation of the Project are described on pages 4.7-18 and 4.7-19 of the EIR. These procedures would appropriately reduce potential damage to CCWD facilities. Also see Response to Comment L-4 OTH-3 regarding notification of the land owners and regular uses of land along ROW.

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MT. VIEW SANITARY DISTRICT
Martinez, California • Founded 1923

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LEGAL COUNSEL

Randolph W. Leptien
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L-MVSD

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CONTRA COSTA COUNTY
APPLICATION & PERMIT CENTER

VIA EMAIL & HAND DELIVERY

November 6, 2009

Contra Costa County Community Development Department
Attention: Lashun Cross, lcross@cd.cccounty.us
651 Pine Street, 2nd Floor – North Wing
Martinez, CA 94553

Re: County File Number #LP072026
The Proposed Air Products 2.6 Mile Hydrogen and
Refinery Fuel Gas Pipeline Project

Dear Ms. Cross,

The Mt. View Sanitary District submitted written comments on the referenced project in a letter to the County dated February 15, 2008. We respectfully request that the preparer of the Draft EIR for this project address the concerns raised in that letter in the final document. In addition we note that reference to the Mt. View Sanitary District should be included in Section 4.16.3.1. OTH-1 UTI-2

Please feel free to contact the undersigned at 925 228 4218 or at randy.leptien@lcc-inc.com should your have any questions or need an additional copy of the referenced correspondence.

Sincerely,
Mt. View Sanitary District

Randolph W. Leptien
LCC, Inc.
District Engineer

Copy via email: M. Roe (I. Chang), D. Adams

MT. VIEW SANITARY DISTRICT
3800 ARTHUR ROAD
P.O. BOX 2757
MARTINEZ, CA 94553
925-228-5635
FAX: 925-228-7585

MAR. 6. 2008 2:28PM COMMUNITY DEVELOPMENT NO. 067 P. 10

L-MVSD

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Sheri D. Rodda
Board Secretary

J. Daniel Adams
Legal Counsel

Randolph W. Leptien
Treasurer

Mt. View Sanitary District
3800 Arthur Road
P.O. Box 2757
Martinez, CA 94553
925-228-5635
FAX: 925-228-7585

2008 FEB 14 P 2:43

February 15, 2008

Contra Costa County Community Development Department
Attention: Lashun Cross
651 Pine Street, 2nd Floor - North Wing
Martinez, CA 94553

Re: County File Number LP07 - 2026
Mt. View Sanitary District Comments On The County's January 16, 2008, Notice Of Preparation Of An Environmental Impact Report, For The Air Products Local Area Hydrogen Pipeline Network
MVSD File No. 677

Dear Ms. Cross,

Here are the Mt. View Sanitary District's comments on the County's January 16, 2008, Notice Of Preparation Of An Environmental Impact Report, for the Air Products hydrogen pipeline network. North of I-680, Mt. View Sanitary District (MVSD) owns and manages 67 acres of wetlands and manages a like amount through a conservation agreement for the East Bay Regional Parks District (EBRPD). These wetlands are known as McNabney Marsh, where MVSD is charged with the management and enhancement of wildlife habitat. The uplands directly east of the McNabney Marsh are owned and managed by the EBRPD. The combination of wetlands and uplands are referred to as the Waterbird Regional Preserve.

The Mt. View Sanitary District (MVSD) is very concerned with this project's potential impacts on the McNabney Marsh and the Moorhen Marsh. The Moorhen Marsh is located on the southerly side of I-680 adjacent to the MVSD plant. MVSD's written comments dated June 15, 2007, in responce to the Land Use Permit application requested that as a condition of the Land Use Permit, the applicant be required to provide all mitigations required by Federal, State, and Regional resource and regulatory agencies and satisfy all requirements of these agencies.

INT-3

The applicant will be required to acquire a pipe line easement from MVSD and enter into an easement agreement with the District for the crossing in the McNabney Marsh. An easement and agreement may also be required for Moorhen Marsh if the pipe lines cross MVSD property in that area.

INT-4

In the Air Products binder, under Tab 3, there is a discussion of the environmental

\\Leserver1\Data (D)\R Leptien Shared Data\MVSD\Marsh Program\US Air Hydrogen Pipeline\#677 Response to County notice of envir. doc. prep..doc

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MT. VIEW SANITARY DISTRICT
Martinez, California • Founded 1923

impact of horizontal directional drilling (HDD) in Attachment Two on pages 17 and 18 of 23. This discussion indicates that "inadvertent returns" is the name for the situations when drilling fluid is dispersed into the soil that surrounds the drilled hole or when the drilling fluid is discharged to the surface. MVSD's letter dated June 15, 2007, stated that "This Land Use Permit Application should indicate the possible impacts of a discharge of the drilling fluid into McNabney Marsh or the soil below the Marsh". In discussing "inadvertent returns" Attachment Two states that "Contingency plans addressing possible remedial action should be made in advance of construction and regulatory bodies should be informed".

MVSD requests that the possible impacts of inadvertent returns on McNabey Marsh and Moorhen Marsh be identified and contingency plans for remedial action be provided in the environmental document. MVSD also requests that the environmental impact report explore and discuss what remedial actions may be required by the regulatory agencies for impacts to McNabney Marsh and Moorhen Marsh resulting from any leakage from either the hydrogen pipeline or the fuel gas pipeline.

You may contact me at phone number 925 228-4218, fax number 925 228-4638, or randy.leptien@lcc-inc.com email, if you have any questions.

Very truly yours,
MVSD

Randolph W. Leptien
LCC, Inc
District Engineer

copy: D. Riddle

RWL:DM

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2.2.6 Letter L-6: L-MVSD

Responses to Letter from Randolph W. Leptien—District Engineer, Mt. View Sanitary District, November 6, 2009

OTH-1 *The Mt. View Sanitary District submitted written comments on the referenced project in a letter to the County dated February 15, 2008. We respectfully request that the preparer of the Draft EIR for this project address the concerns raised in that letter in the final document.*

RESPONSE: Comments INT-3, INT-4, and HAZ-5 below are from this scoping comment letter. The comments and responses follow the Response to Comment L-6, UTI-2.

UTI-2 *In addition we note that reference to the Mt. View Sanitary District should be included in Section 4.16.3.1.*

RESPONSE: Section 4.16.3.1 has been revised as follows: The Project would be located within Central Contra Costa Sanitary District's service area. This District has one secondary treatment facility that can handle up to 55 million gallons per day of dry weather flow and 240 million gallons per day of wet weather flow (Central Contra Costa Sanitary District 2007). In addition, the Project would also be located within the Mountain View Sanitary District's service area. The District manages the McNabney Marsh and the Moorhen Marsh, 151 acres of wetlands alongside Interstate 680 in Martinez.

The Mountain View Sanitary District submitted written comments during the Project public scoping period in on February 15, 2008. Comments INT-3, INT-4, and HAZ-5 below are from this comment letter.

INT-3 *MVSD's written comments dated June 15, 2007, in response to the Land Use Permit application requested that as a condition of the Land Use Permit, the Applicant be required to provide all mitigations required by Federal, State, and Regional resource and regulatory agencies and satisfy all requirements of these agencies.*

RESPONSE: Table 1-1 (page 1-8) in Chapter 1, Introduction, of the Draft EIR provides a summary of impacts and mitigation measures that the Applicant must implement. Table 2-1 in Chapter 2 Introduction lists all permits required for the Project. The Applicant will work with each appropriate agency to provide all necessary information in support of the permit application. A Mitigation Monitoring Plan will be prepared to ensure that all mitigation measures identified in the Draft EIR are implemented.

INT-4 *The Applicant will be required to acquire a pipe line easement from MVSD and enter into an easement agreement with the District for the crossing in the McNabney Marsh. An easement and agreement may also be required for Moorhen Marsh if the pipe lines cross MVSD property in that area.*

RESPONSE: Table 2-1 in Chapter 2 Introduction indicates that a pipeline easement from the Mountain View Sanitary District is required.

HAZ-5 *MVSD requests that the possible impacts of inadvertent returns on McNabey Marsh and Moorhen Marsh be identified and contingency plans for remedial action be provided in the environmental document. MVSD also requests that the environmental impact report explore and discuss what remedial actions may be required by the regulatory agencies for impacts to McNabney Marsh and Moorhen Marsh resulting from any leakage from either the hydrogen pipeline or the fuel gas pipeline.*

RESPONSE: Mitigation Measure BIO-4 requires the pipeline contractor to prepare a site-specific contingency plan for inadvertent frac-outs. The components of the site-specific contingency plan shall include:

- Cease drilling when return of drilling mud slows or ceases, or when the driller or biological monitor observes a spill.
- Employ spill-containment measures (installing silt fencing and/or hay bales).
- Notify USFWS, NMFS and CDFG of incident.
- Pump drilling mud from the containment area to a drill rig or frac truck.
- Refrain from drilling until containment is completed.

As discussed in Section 4.7.6.1, two emergency flow valves (EFVs) are proposed for installation on each of the pipelines. The EFVs would automatically shut down the pipeline in the event of excess flow or, in the case of a leak, minimum flow. This EFV system would effectively mitigate the volume of hydrogen or fuel gas released in the event of a pipeline failure. The pipelines would be equipped with instrumentation that would allow early detection of a leak. Any unusual pressure drop across the EFV or between EFVs would be registered at the control center and followed by a low-pressure alarm, which would result in the operators isolating the affected portion of the pipeline. It is demonstrated in Impact HAZ-1 that the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and impacts would be less than significant to the marshes

L-CMCDD

City of Martinez

525 Henrietta Street, Martinez, CA 94553-2394

COMMUNITY DEVELOPMENT DEPARTMENT (925) 372-3515

October 29, 2009

Lashun Cross, Senior Planner
Contra Costa County Community Development
651 Pine Street, 4th floor-North Wing
Martinez, CA 94553

Ms. Erinn Webber
Air Products and Chemicals Inc.
7201 Hamilton Boulevard
Allentown, PA 18195

Subject: **Comments in Response to Draft EIR for Air Products Local (Shell Refinery to Tesoro Refinery) Hydrogen and Fuel Gas Pipeline Project (Contra Costa County File: LP072026)**

Dear Lashun:

Thank you for your project referral for the subject Draft EIR. The City of Martinez is a "Responsible Agency" for this project. As this project will require a Use Permit inside the City of Martinez, this EIR will serve as the CEQA document for the Use Permit.

The following are our comments regarding the current Draft EIR:

1. Executive Summary: The DEIR's introduction/overview on page 1-1 should clarify that the Project will also require discretionary approval from City of Martinez as a Responsible Agency, as well Use Permit approval from Contra Costa County. [comment also made in City's July 2008 letter on Administrative Draft EIR – copy enclosed] EXE-1

2. Introduction; Chapter 2 - 2.4 - Permits, Approval and Regulatory Requirements (Table 2-1, page 2-5): The Proposed HDD Exit (MP 1.196) and the adjacent Staging and Laydown Area (Figure 3-2, Map C) are on private property (APN 169-310-036) and are thus subject to the requirements of the Martinez Municipal Code, Title 22; Zoning. [maps enclosed] open space and commercial uses." The reference to "mixed use" and "residential" uses should be deleted. INT-2

3. Project Description; Chapter 3 - Figure 3-2, C & Alternatives; Chapter 6 – Figure 6-1: The Martinez City Limits should be shown on both of these graphics. PD-3

4. Aesthetics; Chapter 4 – 4.1.7 - Summary of Impacts and Mitigation, AES-3, page 4.1-6: The discussion regarding Waterfront Road as a scenic route should include information AES-4

Page 1 of 3

L-CMCDD

AES-4 con't regarding the proposed HHD Exit and staging area just east of the Waterfront Road flyover. If applicable, this section should confirm that all above ground activity is to be temporary, and that the ground is to be restored and re-vegetated to pre-existing conditions. If permanent facilities are to be proposed, they must be indicated and evaluated.

LAN-5 5. Land Use; Chapter 4 – 4.9.3.1 – Land Use Designations; Figure 4.9.1: The map should indicate that those "Industrial" area within the City of Martinez north of Waterfront Road and I-680 are designated "Industrial/Environmental Conservation," as further discussed below

LAN-6 6. Land Use; Chapter 4 – 4.9.4.3 – Regulatory Setting, Local, City of Martinez, Zoning Ordinance; page 4.9-6: The subject property is within the ECD/H-I (Heavy Industrial/Environmental Conservation) Zoning District. The Zoning Code (1975) refers to the ECD as a Companion District, and it modifies the Base Heavy Industrial District regulations so that all uses are Conditionally Permitted, even those that would otherwise be permitted in the H-I District. The proposed pipeline use would thus require Use Permit approval. In addition, the ECD requires completion of an Environmental Document (such as the subject EIR) prior to use permit review.

The current language regarding Automobile Service uses in Commercial Districts is not relevant and should be deleted.

NOI-7 7. Land Noise and Vibration Chapter 4 – 4.11.4.3 – Land Use Designations; Local, City of Martinez ; page 4-11-7: A Noise Element of the General Plan was adopted in 1985, and its goals and policies are implemented by the 2004 Nose Ordinance, as referenced on the following pages of the D-EIR.

PD-8 8. Section 3.4.1.1 "Open-Cut Trenching, Backfilling": Trench backfilling, compaction and surface treatment shall conform to City Standard Detail # S-11. City Standard Details are posted in the City of Martinez website.

PD-9 9. Section 3.7.1 "Pipeline Right of Way": A Franchise Agreement and Encroachment Permit, from the City of Martinez, will be needed for the portion of the work on waterfront Road within the City of Martinez City Limits.

HAZ-10 10. Section 4.7.7 "Summary of Impacts and Mitigation Haz-2A":Project specific Operation, Maintenance and Emergency Procedure should also be submitted to the City of Martinez as well.

NOI-11 11. Section 4.11.7 "Mitigation Measure NOI-1A":Construction Schedule should also be submitted to the City of Martinez.

TRA-12 12. Section 4.15.7 "Summary of Impact and Mitigation ,Trans-1, Trip Generation and Distribution ": The DEIR indicates that construction of this project will start in May, 2009. This date should be revised. This paragraph should also include the approximate duration of the construction period.

Page 2 of 3

L-CMCDD

13. Section 4.15.7 "Summary of Impact and Mitigation , Mitigation Measure Trans-9": Pavement Monitoring plans should also be submitted to the City of Martinez for the portion of the work within the City limits. After the post construction survey, required pavement repairs and/or rehabilitation measures shall be subject to the review approval of the City, and shall be preformed to the satisfaction of the City Engineer. Paving the entire width of the street along the pipeline (or paving one lane of traffic) may be required depending on the location and width of the trench, and on the condition of the pavement after completing the work. TRA-13

Please note that comments below are for the portion of the project within the City of Martinez City limits. Comments form other agencies should be considered for the entire project, as applicable.

A. Permits & fees: Plans and specifications shall be submitted to the City for review and approval for all work within the City limits. All required fees, deposits and insurance certificates shall be submitted prior to issuing permit(s). Work on private properties, such as the staging area near the UPRR overpass, shall also be improved the property owner.

B. The City of Martinez shall be provided with copies of all required submittals that are related to the work within the City Limits. OTH-14

C. City of Martinez General Requirements: It should be noted that all improvements within the City of Martinez City limits should be reviewed approved by the City. The City shall be involved in the inspection of all construction activities within the City limits, in addition to any proposed specialized inspection. In case of a conflict(s) between the plans or the proposed mitigation measures for this project and that of the City's Municipal Code and City standards, the more stringent requirements shall apply as determined by the City Engineer.

Sincerely,

Corey M. Simon
Senior Planner

enclosures

cc: Karen Majors, Assistant City Manager, Community and Economic Development
Tim Tucker, City Engineer
Khalil Yowakim, Associate Civil Engineer
Terry Blount, Planning Manager

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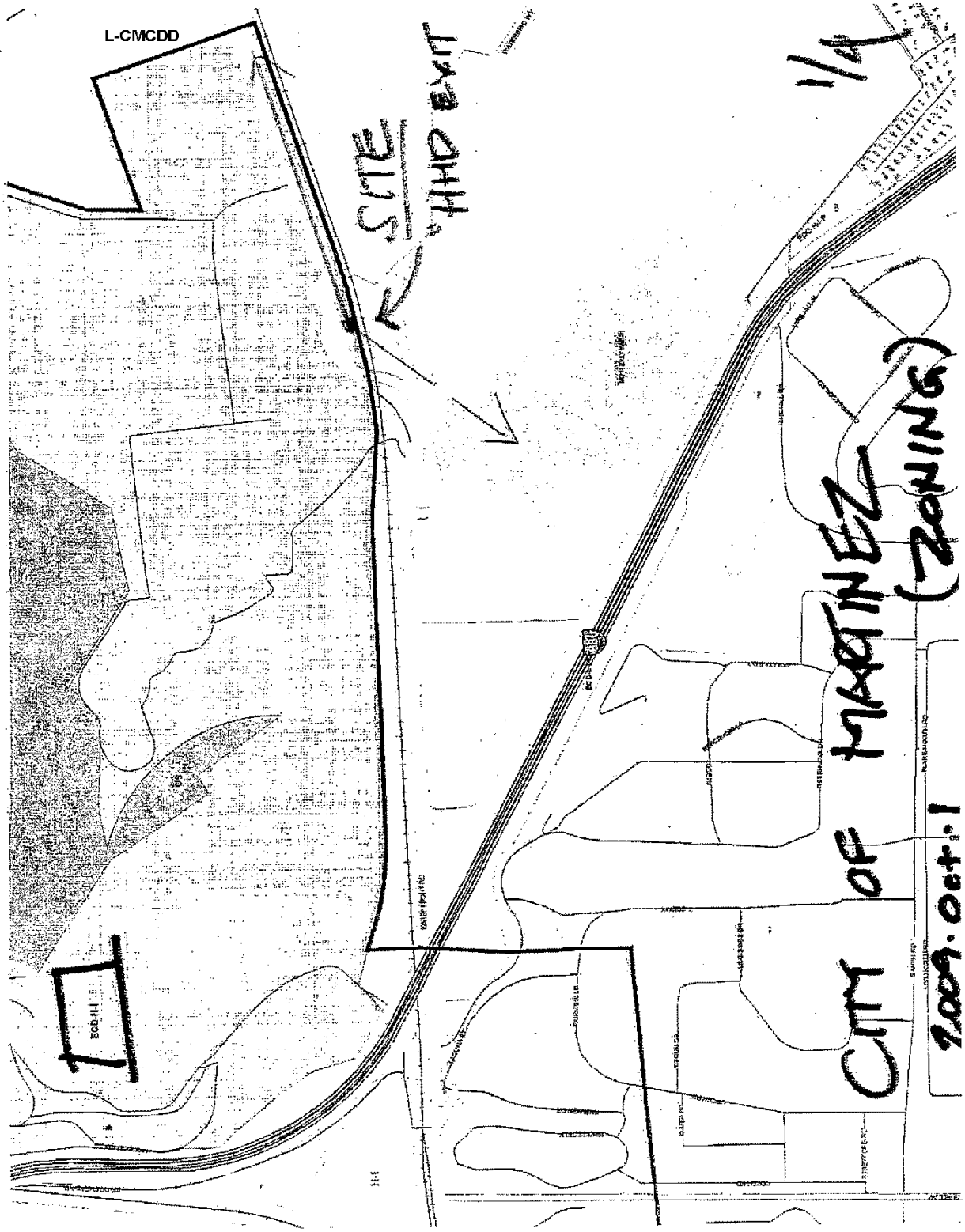
Page 3 of 3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CITY OF MARTINEZ (ZONING)
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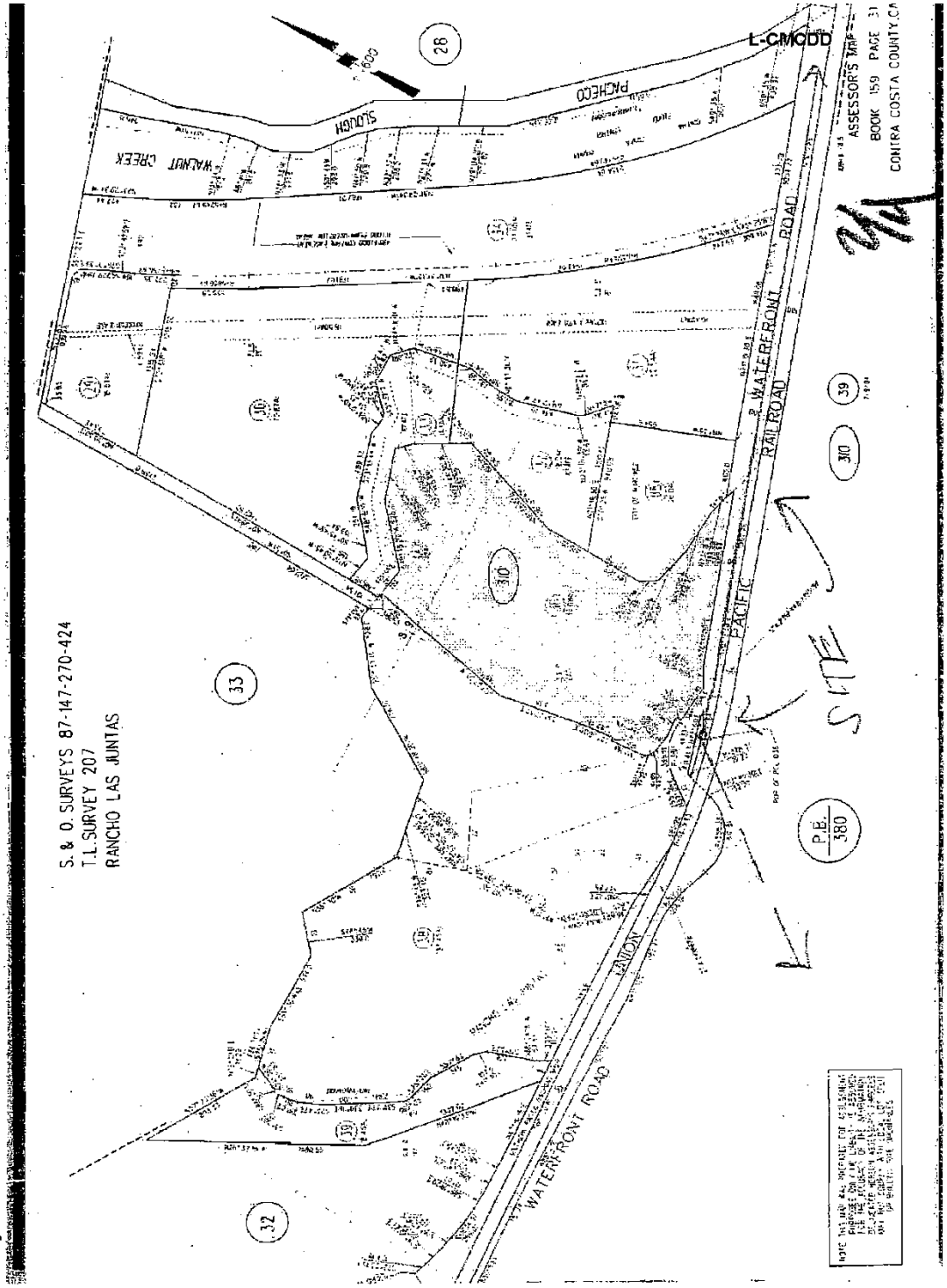
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ASSESSOR'S MAP
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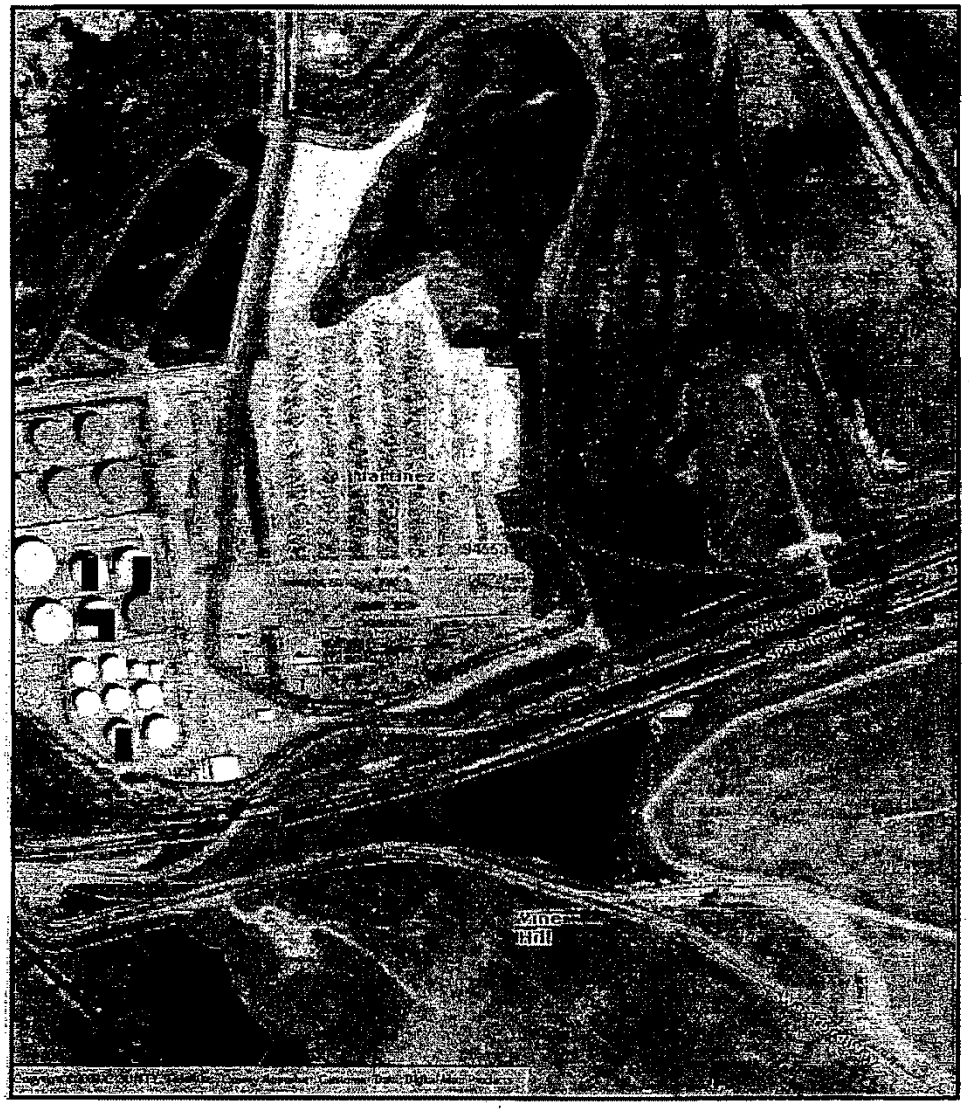
CONTRA COSTA COUNTY, CA
WALNUT CREEK
SLOUGH
PACHECO
WATERFRONT ROAD
RAILROAD
PACIFIC
UNION
WATERFRONT ROAD
SITE
P.E.
380
28
33
32
310
39



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CityGIS

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http://maps.digitalmapcentral.com/production/CityGIS/v07_01_062/index.html 9/30/2009

2.2.7 Letter L-7: L-CMCDD

Responses to Letter from Corey M. Simon—Senior Planner, Community and Economic Development Department, City of Martinez, October 29, 2009

EXE-1 *Executive Summary: The DEIR's introduction/overview on page 1-1 should clarify that the Project will also require discretionary approval from City of Martinez as a Responsible Agency, as well Use Permit approval from Contra Costa County. [comment also made in City's July 2008 letter on Administrative Draft EIR – copy enclosed]*

RESPONSE: Section 2, Introduction, provides information regarding Project approvals and permits. Section 2.3 lists the agencies "...that may rely on this EIR when considering approvals for the proposed Project," including the City of Martinez. Waterfront Road is within the Project area and in the City's jurisdiction; therefore the Project may require a Franchise Agreement, Encroachment Permit, and a Conditional Use Permit. See Table 2-1 (page 2-4) of the Draft EIR for a list of permits and approvals for the Project.

INT-2 *Introduction; Chapter 2 – 2.4 – Permits, Approval and Regulatory Requirements (Table2-1, page 2-5): The Proposed HDD Exit (MP 1.196) and the adjacent Staging and Laydown Area (Figure 3-2, Map C) are on private property (APN 169-310-036) and are thus subject to the requirements of the Martinez Municipal Code, Title 22; Zoning. [maps enclosed] open space and commercial uses." The reference to "mixed use" and "residential" uses should be deleted.*

RESPONSE: Table 2-1 contains permits that the Applicant will have to obtain from the City of Martinez, including a Franchise Agreement, Encroachment Permit, and a Conditional Use Permit. Obtaining the Conditional Use Permit would enable the Project to comply with the Martinez Municipal Code, Title 22, Zoning. It is unclear which section of the EIR the last sentence of the comment is referring to: "The reference to 'mixed use' and 'residential' should be deleted," as there are no references to mixed use or residential in Chapter 2 or in Section 4.9, Land Use and Planning.

PD-3 *Project Description; Chapter 3 – Figure 3-2, C & Alternatives; Chapter 6 – Figure 6-1: The Martinez City Limits should be shown on both of these graphics.*

RESPONSE: Figures 3-2A-C and Figure 6-1 have been updated to include the City of Martinez boundary.

AES-4 *Aesthetics; Chapter 4 – 4.1.7 – Summary of Impacts and Mitigation, AES-3, page 4.1-6: The discussion regarding Waterfront Road as a scenic route should include information regarding the proposed HHD Exit and staging area just east of the Waterfront Road flyover. If applicable, this section should confirm that all above ground activity is to be temporary, and that the ground is to be*

restored and re-vegetated to pre-existing conditions. If permanent facilities are to be proposed, they must be indicated and evaluated.

RESPONSE: As discussed in Impact AES-4, "After installation of the pipe, the construction corridor would be restored to its original condition by removing any construction debris, grading to the original grade and contour, and revegetating, which would occur within 10 days after backfilling the trench." As discussed in Section 3.4.1.4, once the HDD is complete, the pipelines would be laid out along the southern edge of Waterfront Road and pulled back through the hole at the Shell Refinery. Impact AES-4 applies to this area as well and any disturbance will be restored within 10 days.

As discussed in Impact AES-3, permanent Project facilities along Waterfront Road include a short segment of pipelines aboveground across Pacheco Creek, utilizing an existing pipe bridge above the creek's water level. The pipe bridge currently holds seven existing pipelines; therefore, the addition of two pipelines to this bridge would be visually consistent with the existing conditions at the Pacheco Creek crossing.

LAN-5 *Land Use; Chapter 4 – 4.9.3.1 – Land Use Designations; Figure 4.9.1: The map should indicate that those "Industrial" area within the City of Martinez north of Waterfront Road and I-680 are designated "Industrial/Environmental Conservation," as further discussed below.*

RESPONSE: Figure 4.9-1 has been updated to indicate that areas north of Waterfront Road and I-680 are designated "Industrial/Environmental Conservation"

LAN-6 *Land Use; Chapter 4 – 4.9.4.3 – Regulatory Setting, Local, City of Martinez, Zoning Ordinance; page 4.9-6: The subject property is within the ECD/H-1 (Heavy Industrial/Environmental Conservation) Zoning District. The Zoning Code (1975) refers to the ECD as a Companion District, and it modifies the Base Heavy Industrial District regulations so that all uses are Conditionally Permitted, even those that would otherwise be permitted in the H-I District. The proposed pipeline use would thus require Use Permit approval. In addition, the ECD requires completion of an Environmental Document (such as the subject EIR) prior to use permit review.*

The current language regarding Automobile Service uses in Commercial Districts is not relevant and should be deleted.

RESPONSE: As stated in Response to Comment L-7 INT-2, Table 2-1 contains permits that the Applicant will have to obtain from the City of Martinez, including a Franchise Agreement, Encroachment Permit, and a Conditional Use Permit.

Section 4.9.4.3 is revised as follows: The Project is located within the Heavy Industrial/Environmental Conservation (ECD/H-1) Zoning District. The Zoning Code (1975) refers to the ECD as a Companion District, and it modifies the Base Heavy Industrial District regulations so that all uses are Conditionally Permitted, even those that would otherwise be permitted in the H-1 District.

The current language regarding Automobile Service uses in Commercial Districts was deleted based on changes to Section 4.9.4.3 above.

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0 200 400 800 Feet

1 inch = 400 feet

Notes:
EFV - Excess Flow Valve
RFG - Refinery Fuel Gas

begin 0.10th of a mile post mile post end

Local Area Pipeline Network Project Alignment
(2.63 miles in length)

Pipeline Laydown Area
Pipeline Construction Right of Way
Proposed Staging and Laydown Area

LOCAL AREA PIPELINE NETWORK PROJECT
Proposed Pipeline Alignment Map

Figure 3-2 Map A

Pipes to be placed on existing pipe trestle spanning Pacheco Creek
(Entry Point MP 0.90)
(Exit Point MP 1.10)

Bore and Casing Pits

Bore and Casing Pits

Bore and Casing Pits

City of Martinez

Waterfront Road

Waterfront Rd

UPRR

Pacheco Creek

Solano Way

0 200 400 800 Feet

1 inch = 400 feet

Notes:
EFV - Excess Flow Valve
RFG - Refinery Fuel Gas

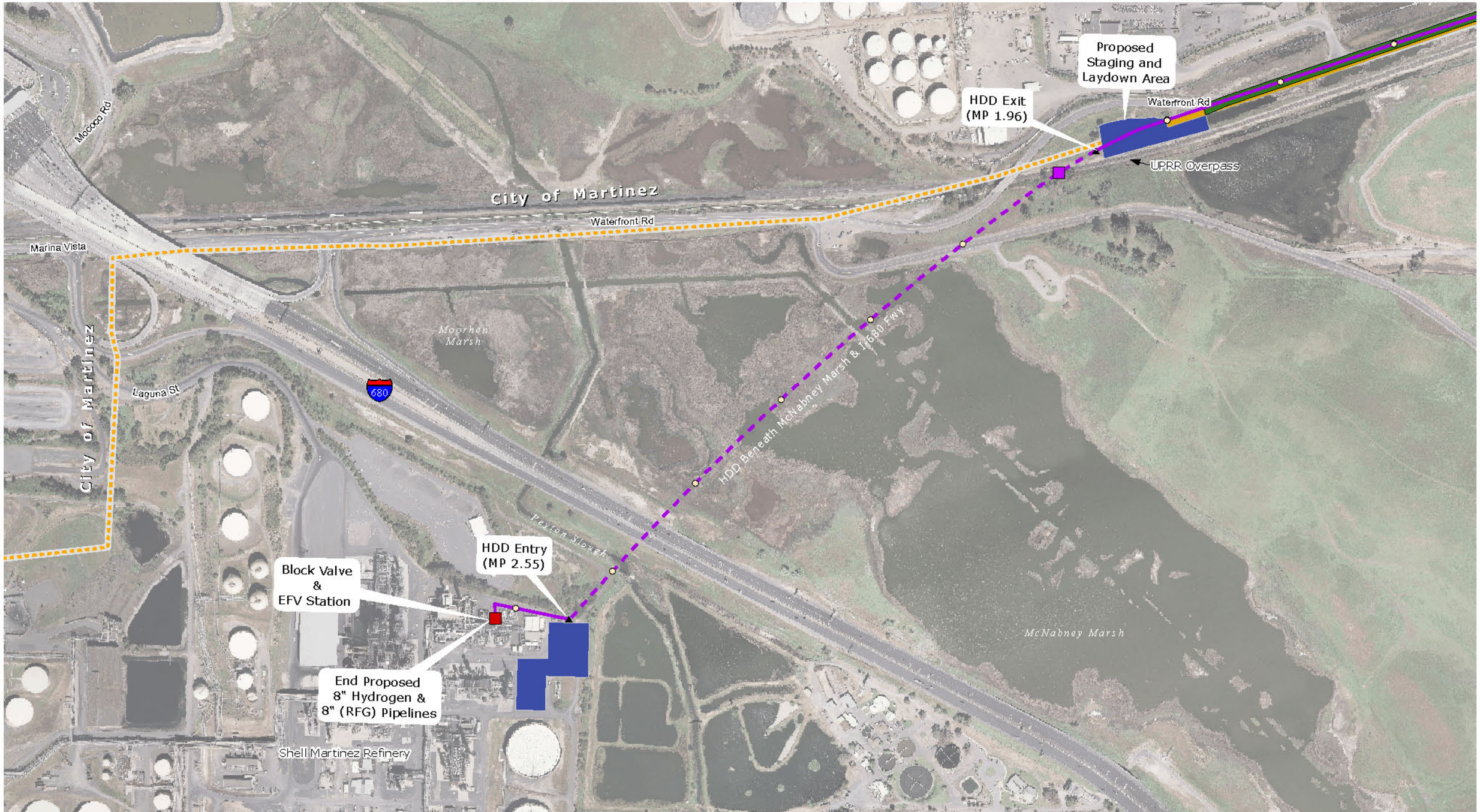
begin 0.10th of a mile post mile post end

Local Area Pipeline Network Project Alignment
(2.63 miles in length)

Pipeline Laydown Area
Pipeline Construction Right of Way
Proposed Staging and Laydown Area

LOCAL AREA PIPELINE NETWORK PROJECT
Proposed Pipeline Alignment Map

Figure 3-2 Map B



0 200 400 800 Feet

1 inch = 400 feet

Notes:
EFV - Excess Flow Valve
RFG - Refinery Fuel Gas

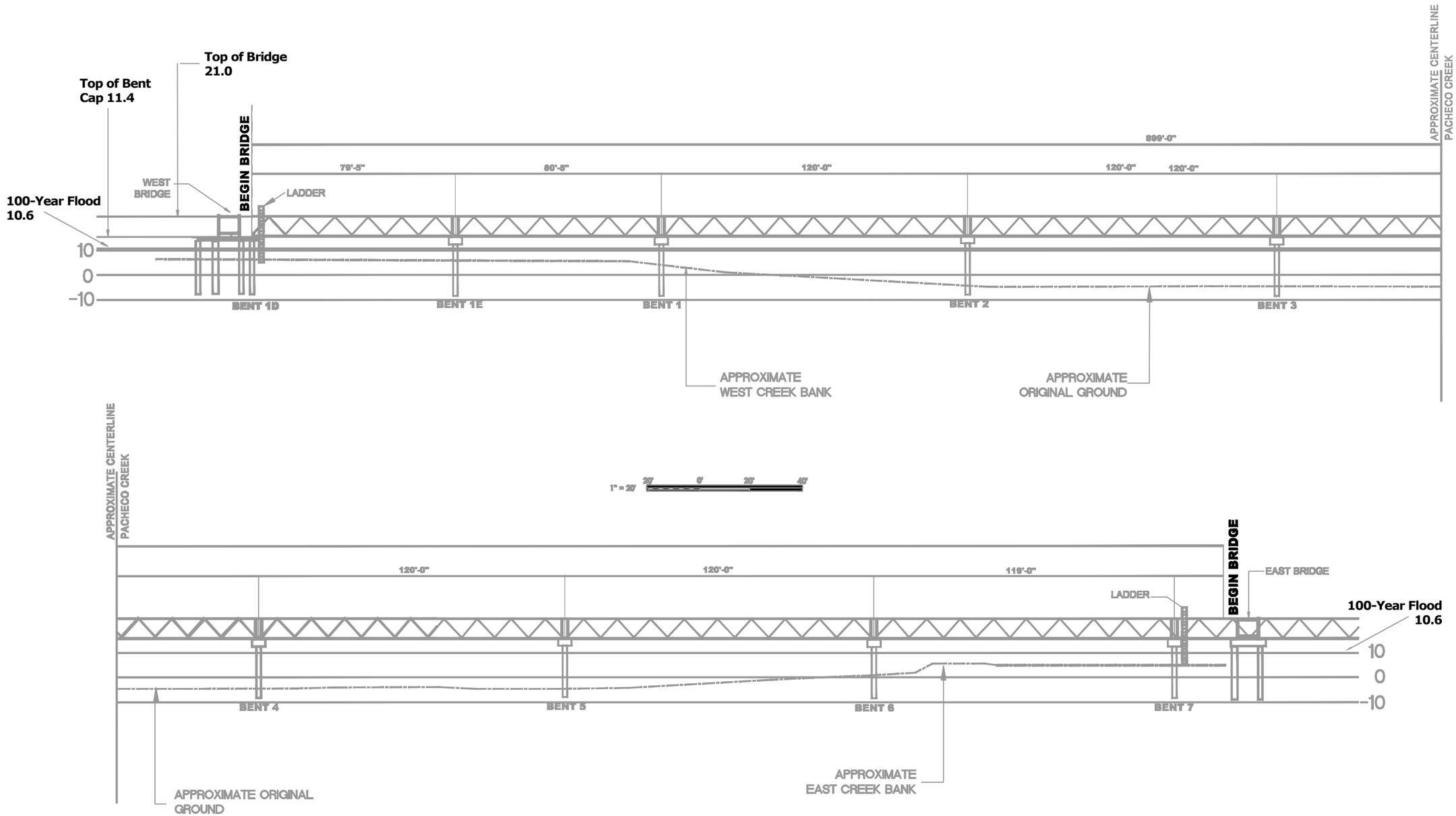
begin 0.10th of a mile post mile post end

Local Area Pipeline Network Project Alignment
(2.63 miles in length)

Pipeline Laydown Area
Pipeline Construction Right of Way
Proposed Staging and Laydown Area

LOCAL AREA PIPELINE NETWORK PROJECT
Proposed Pipeline Alignment Map

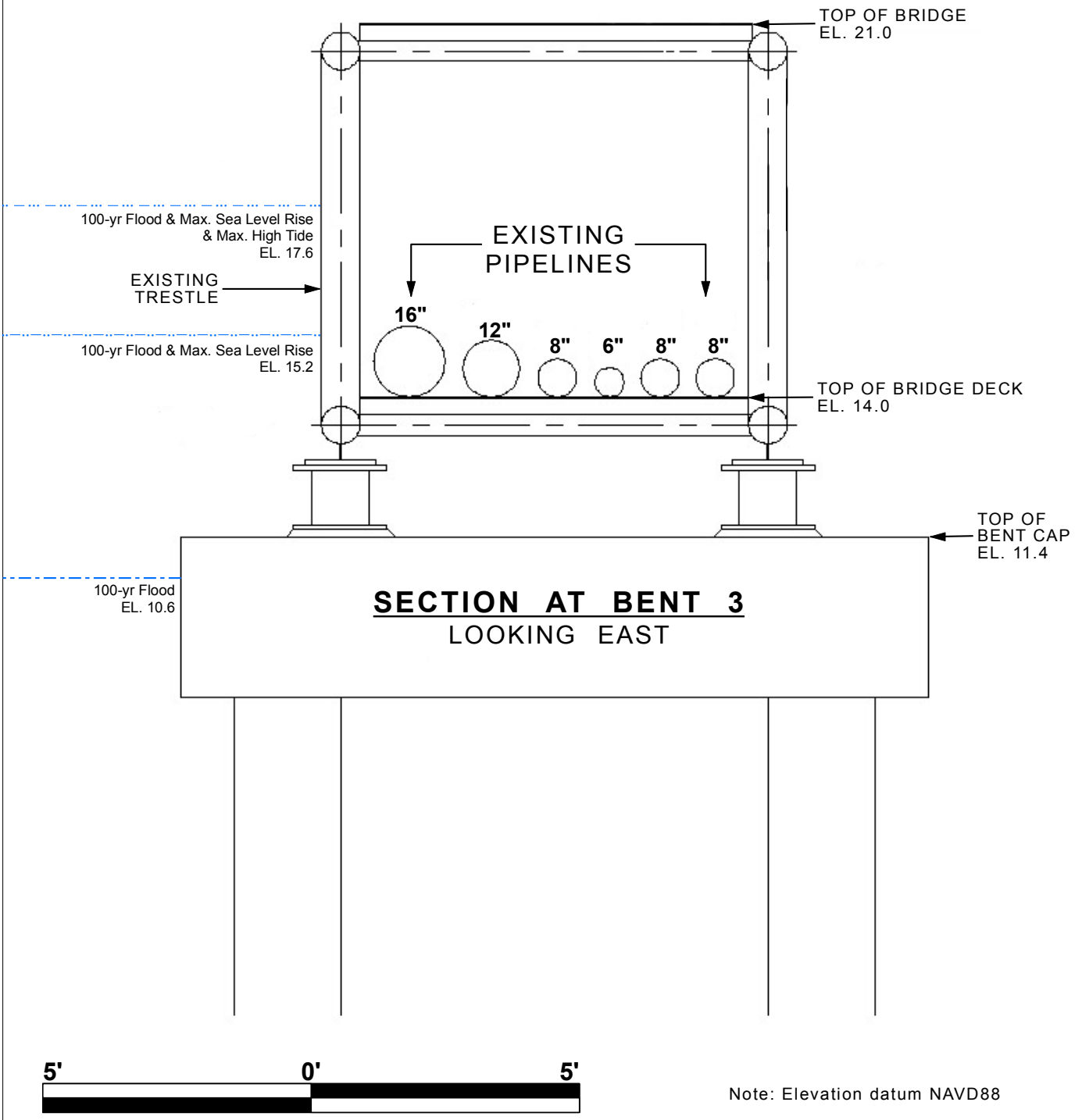
Figure **3-2** **Map C**



Longitudinal View of Tesoro Pipe Bridge

(elevation in feet NAVD 88)

Figure **3-5**



Note: Elevation datum NAVD88

LOCAL AREA PIPELINE NETWORK PROJECT

Pacheco Creek Pipe Bridge – Existing and Projected (2100) Flood Elevations

Figure

4.8-3

Pacheco Marsh
Mococo Rd
Martinez-benicia Toll Bridge
Peyton Slough
Waterfront Road
Waterfront Rd
UPRR Overpass
UPRR
Solano Way
Tesoro Golden Eagle Refinery
B
Moorhen Marsh
Shell Ave
Laguna St
680
HDD Beneath McNabney Marsh & I-680 Fwy
McNabney Marsh
Pacheco Creek
Shell Martinez Refinery
Irene Dr
Rita Dr
Valley Dr
Arthur Rd
Cabrilho Dr
Palms Dr
Amelia Ave
Peyton Creek
Pacheco Blvd
Vine Ave
Plaza Dr
Corce Ct
Central Ave
Walnut Cre

City of Martinez Land Use
- Industrial
- Industrial/Environmental Conservation

Contra Costa County Land Use
- Commercial
- Heavy Industry
- Light Industry
- Multiple-Family Residential - High Density
- Multiple-Family Residential - Low Density
- Open Space
- Parks and Recreation
- Public and Semi-Public
- Single-Family Residential - High Density
- City of Martinez

0 200 400 800 Feet
1 inch = 1,000 feet

Notes:
EFV - Excess Flow Valve
RFG - Refinery Fuel Gas

begin — 0.10th of a mile post — mile post — end
B — 1 — E
Tesoro to Shell Alignment: Proposed Project
(2.63 miles in length)

- Pipeline Laydown Area
- Pipeline Construction Right of Way
- Proposed Staging and Laydown Area

LOCAL AREA PIPELINE NETWORK PROJECT
Land Use Designations in the Project Area

Figure 4.9-1

0 200 400 800 Feet
1 inch = 1,000 feet

Notes:
EFV - Excess Flow Valve
RFG - Refinery Fuel Gas

begin — 0.10th of a mile post — mile post — end

B — 2 — E Alternative 2: McNabney Reroute Alternative (3.49 miles in length)

B — 3 — E Alternative 3: Southern Alignment Alternative (2.69 miles in length)

Pipeline Laydown Area
Pipeline Construction Right of Way
Proposed Staging and Laydown Area

LOCAL AREA PIPELINE NETWORK PROJECT
Alternative Pipeline Alignments Map

Figure 6-1

NOI-7 *Land Noise and Vibration Chapter 4 – 4.11,4,3 – Land Use Designations; Local, City of Martinez; page 4-11-7: A Noise Element of the General Plan was adopted in 1985, and its goals and policies are implemented by the 2004 Noise Ordinance, as referenced on the following pages of the D-EIR.*

RESPONSE: Section 4.11.4.3 under City of Martinez has been revised as follows: The City of Martinez Noise Ordinance (Chapter 8.34.020 of the City's Municipal Code) regulates noise in the city (City of Martinez 2004). Chapter 8.34.010 of the Noise Ordinance states, "It is the purpose of this chapter to implement the goals of the Noise Element of the General Plan [1985] by prescribing standards prohibiting detrimental levels of noise and by providing an effective and readily available remedy for violations." ~~At this time, the City of Martinez General Plan (1995) does not include a Noise Element.~~ The Noise Ordinance identifies the following as acceptable standards for noise levels:

PD-8 *Section 3.4.1.1 "Open-Cut Trenching, Backfilling": Trench backfilling, compaction and surface treatment shall conform to City Standard Detail # S-11. City Standard Details are posted in the City of Martinez website.*

RESPONSE: The last paragraph under Backfilling in Section 3.4.1.1 has been revised as follows: Motor graders, angle dozers, and modem backfill machines would move dirt from the spoil bank to the trench. The backfilled earth would be compacted to avoid settling in place. For construction in roadways, the surface would be leveled after backfilling and then repaved. For construction in roadways within the City of Martinez, backfilling would conform to City Standard Detail #S-11 A, B, C, and D. All affected surfaces would be restored to pre-existing conditions.

PD-9 *Section 3.7.1 "Pipeline Right of Way": A Franchise Agreement and Encroachment Permit, from the City of Martinez, will be needed for the portion of the work on Waterfront Road within the City of Martinez City Limits.*

RESPONSE: Table 2-1 includes permits and approvals required by the City of Martinez. In particular, it states that "Waterfront Road is in the city's jurisdiction and may require a Franchise Agreement, Encroachment Permit, and a Conditional Use Permit." The Applicant would submit fees, plans, and other required materials to the City of Martinez in order to obtain these permits. The City of Martinez will have the authority to inspect all construction activities within the city limits.

HAZ-10 *4.7.7 – "Summary of Impacts and Mitigation Haz-2A": Project specific Operation, Maintenance and Emergency Procedure should also be submitted to the City of Martinez as well.*

RESPONSE: Mitigation Measure HAZ-2A has been revised as follows: Sixty days prior to start of Project construction, Air Products shall provide Project-specific Operating, Maintenance, and Emergency Procedures to Contra Costa County and to the City of Martinez for approval.

NOI-11 *Section 4.11.7 "Mitigation Measure NOI-1A": Construction Schedule should also be submitted to the City of Martinez.*

RESPONSE: Mitigation Measure NOI-1A in Section 4.11 Noise and Vibration has been revised as follows: The Applicant (Air Products) shall provide a construction schedule to the Mountain View Sanitary District, the City of Martinez, and the EBRPD as the property owners at least seven days in advance of construction.

TRA-12 *Section 4.15.7 "Summary of Impact and Mitigation, Trans-1, Trip Generation and Distribution": The DEIR indicates that construction of this project will start in May, 2009. This date should be revised. This paragraph should also include the approximate duration of the construction period.*

RESPONSE: Section 4.15.7, Impact TRANS-1, has been revised as follows: ~~The proposed Project is scheduled to begin construction in May 2009 and is expected to occur over a four-month period.~~ Construction is anticipated to start in the second or third quarter of 2012 depending on the receipt of all of the permits.

TRA-13 *Section 4.15.7 "Summary of Impact and Mitigation, Mitigation Measure TRANS-9": Pavement Monitoring plans should also be submitted to the City of Martinez for the portion of the work within the City limits. After the post construction survey, required pavement repairs and/or rehabilitation measures shall be subject to the review approval of the City, and shall be preformed to the satisfaction of the City Engineer. Paving the entire width of the street along the pipeline (or paving one lane of traffic) may be required depending on the location and width of the trench, and on the condition of the pavement after completing the work.*

RESPONSE: Mitigation Measure TRANS-9 has been revised as follows: A pavement monitoring plan would be submitted to the County Public Works Department and to the City of Martinez prior to construction for review and approval. The Applicant shall survey the pavement condition along the haul route (or any routes approved by the Public Works Department and the City of Martinez) that will be utilized for hauling or construction related activities. A pavement condition survey, that includes a preconstruction survey of the haul route or routes utilized, using a method approved by the Public Works Department and the City of Martinez, shall be submitted to the Public Work Department prior to the commencement of any hauling or construction activities. A post-construction pavement survey of the haul route or routes conducted after the end of work shall be utilized by the Public Works Department and the City of Martinez to determine the level of repair, rehabilitation, and reconstruction that may be required of the haul route or routes. Any permanent pavement damage, identified during pavement monitoring, would be restored to its pre-Project condition immediately after construction has been completed. In addition, the required pavement repairs and/or rehabilitation measures shall be subject to the review approval of the City of Martinez, and shall be performed to the satisfaction of the City Engineer. Paving the entire width of the street along the pipeline (or paving one lane of traffic) may be required depending on the location and width of the trench, and on the condition of the pavement after completing the work. The

Applicant shall bear the cost of repairing, rehabilitating, or reconstructing any roadways used for haul routes or construction to their pre-Project conditions, as determined by the pavement surveys. Approval by the City of Martinez shall be requested following the post-construction pavement survey.

OTH-14 *A. Permits & fees: Plans and specifications shall be submitted to the City for review and approval for all work within the City limits. All required fees, deposits and insurance certificates shall be submitted prior to issuing permit(s). Work on private properties, such as the staging area near the UPRR overpass, shall also be improved the property owner.*

B. The City of Martinez shall be provided with copies of all required submittals that are related to the work within the City Limits.

C. City of Martinez General Requirements: It should be noted that all improvements within the City of Martinez City limits should be reviewed approved by the City. The City shall be involved in the inspection of all construction activities within the City limits, in addition to any proposed specialized inspection. In case of a conflict(s) between the plans or the proposed mitigation measures for this project and that of the City's Municipal Code and City standards, the more stringent requirements shall apply as determined by the City Engineer.

RESPONSE: See Response to Comment L-7 PD-9.

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L-EBRPD
East Bay Regional Park District
2950 PERALTA OAKS COURT P.O. BOX 5381 OAKLAND CALIFORNIA 94605-0381
T. 1 888 EBPARKS F. 510 569 4319 TDD. 510 633 0460 WWW.EBPARKS.ORG

2009 OCT 26 P 2:04

DEPARTMENT OF CONSERVATION AND DEVELOPMENT

October 22, 2009

Contra Costa County
Department of Conservation and Development
651 Pine Street, 4th Floor, North Wing
Martinez, CA 94553
Attn. Lashun Cross

Subject: Comments on DEIR for Proposed Air Products Pipeline
Waterbird Regional Preserve

Thank you for providing the East Bay Regional Park District ("District") with a copy of the Draft Environmental Impact Report (DEIR) for the proposed Air Products Local Area Pipeline Network Project ("Project). The following are the District's comments on the Project DEIR.

The proposed Project will affect Waterbird Regional Preserve ("Preserve") in Martinez, California. The proposed pipeline would cross under a portion of the Preserve (*please see the enclosed exhibit*). Most of the impacts would occur during Project construction. Potential short-term Project construction impacts include light and glare, noise, water quality, traffic, wildlife, open space and public recreation. There would also be long-term effects to the Preserve from operation and maintenance of the Project. This may include maintenance of the Project right-of-way, potential product leakage, and repair or replacement of Project facilities.

Short-Term Construction Impacts

Figure 3-2, Map C in the DEIR indicates that the proposed Project includes a Horizontal Directional Drill (HDD) underneath McNabney Marsh. This marsh is jointly owned by the Mount View Sanitary District and the Park District. Our primary concern is for the potential release of drilling mud "frac out" into McNabney Marsh during Project construction. This occurred during a recent Chevron pipeline project at McNabney Marsh. Discharged drilling muds resulted in adverse effects to water quality, wetlands and wildlife. For potential Project construction within the Preserve any discharged muds must be removed and the impacted area restored. Frac out mitigation should be included for potential effects to saltmarsh harvest mouse in Mitigation Measure BIO-3 on page 4.4-32 and in HWQ-6 on page 4.8-32 of the DEIR. BIO-1/ HWQ-1

We understand that HDD operations are typically conducted on a 24/7 basis. The DEIR is not clear on the proposed hours of the HDD operation. Impacts from a HDD operation will increase the levels of light, glare and noise in the Project area. These potential impacts will be more significant at night. Night-time construction would require installation and operation of high-intensity lighting facilities near the Marsh that may result in adverse effects to wildlife PD-2 BIO-3

Board of Directors

Ted Radke, President, Ward 7 · Doug Siden, Vice-President, Ward 4 · Beverly Lane, Treasurer, Ward 6 · Carol Severin, Secretary, Ward 3 · John Sutter, Ward 2 · Whitney Dotson, Ward 1 · Ayn Wieskamp, Ward 5 · Pat O'Brien, General Manager

L-EBRPD

BIO-3, con't within the Preserve (*see "Ecological Consequences of Artificial Night Lighting" by Rich and Longcore, 2006*). What measures will be implemented to mitigate this potentially significant effect?

NOI-4 A recent analysis conducted by Contra Costa County for the proposed Praxair Pipeline showed that HDD operations may generate more than 100 decibels of noise. The DEIR on page 4.11-11 states that noise levels in the Preserve would only increase by 2.9 decibels above the ambient noise level of 65 decibels. There appears to be a significant discrepancy between the Praxair and Air Products EIR analyses of noise impacts. Please explain.

BIO-5 The DEIR states on page 4.4-32 that impacts to saltmarsh harvest mouse will be mitigated by limiting construction to daylight hours. Would this also apply to HDD operations? Why is noise mitigation warranted for harvest mouse, but not for other wildlife or people?

BIO-6 Mitigation Measure BIO-8 on page 4.4-37 of the DEIR states that some trees may need to be removed (or pruned) in order to place the HDD tracing system. It's unclear from the Project exhibits if this might include any trees within the Preserve. In general the District does not permit the removal of trees from its parks.

TRA-7 Another concern is how park visitors and District staff will access the Preserve during Project construction. The DEIR states under Mitigation Measure TRANS-1A on page 4.14-4 that there will be lane closures on Waterfront Road. This may impede access to the Preserve. Access roads must remain accessible to maintenance and emergency vehicles during project construction. The proposed "Traffic Control and Implementation Plan" described on page 4.15-11 of the DEIR should be developed with the District to assure that the District's access requirements are addressed.

OTH-8 Appendix B of the DEIR provides a Storm Water Pollution Prevention Plan (SWPP). The project description on page 3 of the SWPP describes the project location as the "City of Carson, CA". Is the SWPP provided with the DEIR intended to be an example of a SWPP that would be prepared for the subject Project or is this an error? Please clarify.

<u>Long-Term Impacts</u>

BIO-9 Project construction will introduce non-native vegetation into the Preserve. Often construction equipment and/or imported fill sources bring weed seeds that establish along project rights-of-way, access roads, and laydown and staging areas. Areas in or adjacent to the Preserve and McNabney Marsh will need to be maintained and monitored on a regular basis to control and remove non-native plant species. Project construction within the Preserve will be subject to the terms and conditions contained in the District's Encroachment Permit.

PD-10 Monitoring of Project facilities should be conducted to determine any potential product leakage. This should include aerial surveys, visual inspections, corrosion detection, pressure testing and other measures to assure that the facilities remain safe and minimize risk of product release. The DEIR on page 3-33 states that surface patrols would be conducted every three months. For pipeline routes at Waterbird, the District would likely require monthly inspections.

2

L-EBRPD

It may be necessary to repair or replace Project facilities during the life of the Project. Pipelines in other parks have been subject to significant corrosion and have had to be replaced. This may require excavation, trenching, drilling and other measures that are disruptive to the Preserve. A monitoring, maintenance and repair plan should be developed by the applicant that addresses these needs. Such activities will require review and approval by the District. The applicant would also need to obtain a District Encroachment Permit for maintenance activities. PD-11/ INT-11

The DEIR states on page 2-5 that the District would provide a "*Discretionary Easement*". On page 3-31 the DEIR states that a ten-foot wide "*permanent easement*" would be required. Should the District agree to allow the proposed pipeline to be constructed through Waterbird Preserve it would likely be through a *25-year lease* or other similar agreement; it would not be a permanent right as stated in the DEIR. INT-12

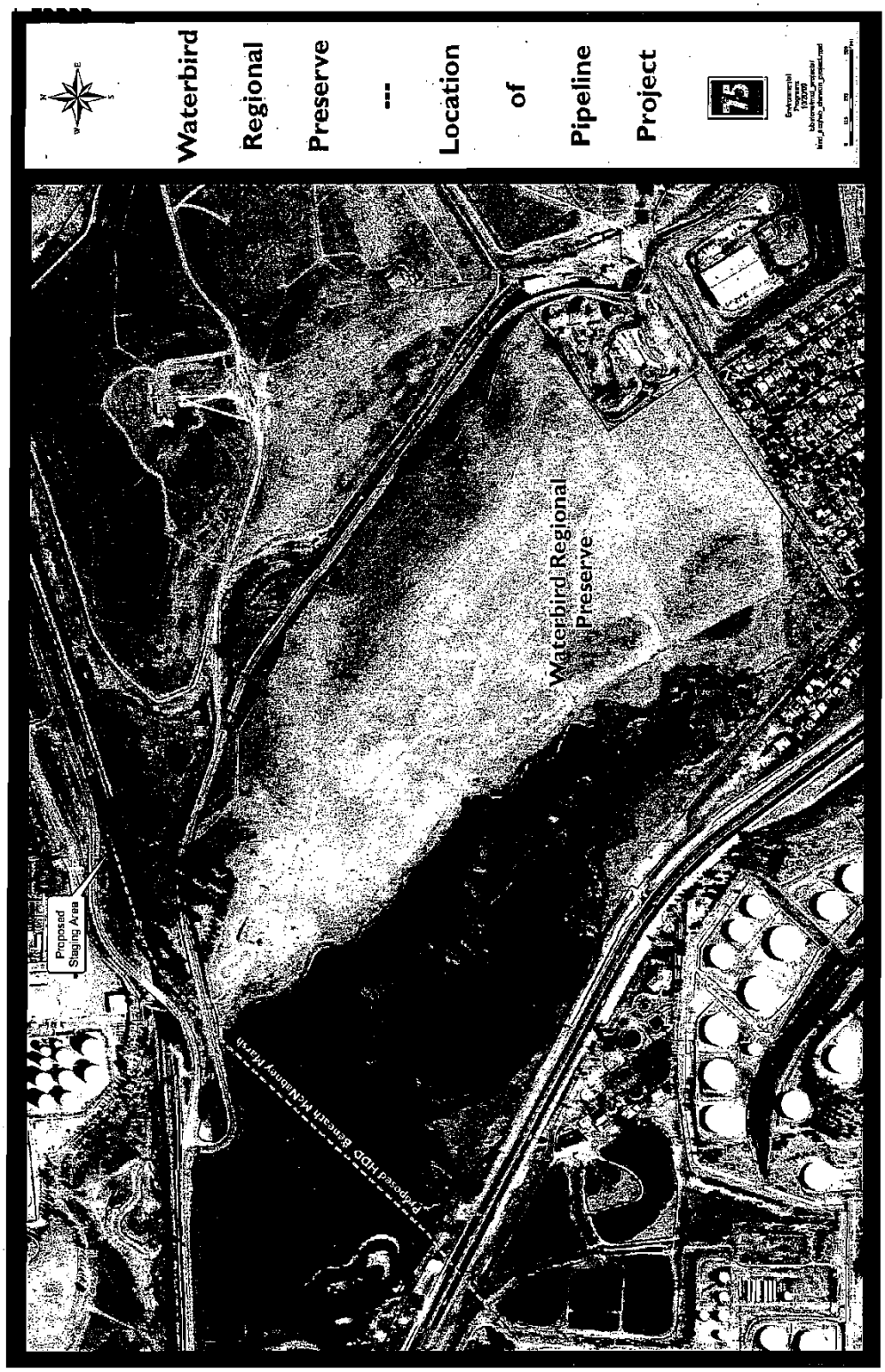
Please call me at (510) 544-2622 should you have any questions regarding our letter.

Sincerely,

Brad Olson
Environmental Programs Manager

One enclosure

3


Waterbird Regional Preserve -- Location of Pipeline Project
75
Proposed Staging Area
Proposed HDD Beneath McNabney Marsh
Waterbird Regional Preserve

2.2.8 Letter L-8: L-EBRPD

Responses to Letter from Brad Olsen—Environmental Programs Manager, East Bay Regional Park District, October 22, 2009

BIO-1/HWQ-1 *Figure 3-2, Map C in the DEIR indicates that the proposed Project includes a Horizontal Directional Drill (HDD) underneath McNabney Marsh. This marsh is jointly owned by the Mountain View Sanitary District and the Park District. Our primary concern is for the potential release of drilling mud "frac out" into McNabney Marsh during Project construction. This occurred during a recent Chevron Pipeline project at the McNabney Marsh. Discharged drilling muds resulted in adverse effects to water quality, wetlands and wildlife. For potential Project construction within the Preserve any discharged muds must be removed and the impacted area restored. Frac-out mitigation should be included for potential effects to saltmarsh harvest mouse in Mitigation Measure BIO-3 on page 4.4-32 and in HWQ-6 on page 4.8-32 of the DEIR.*

RESPONSE: Mitigation Measure HWQ-6 has been revised as follows:

A site-specific contingency plan for inadvertent frac-out is being prepared by the pipeline contractor. The plan shall address how potential impacts from HDD operations would be kept to minimum required components of the contingency plan are to: stop drilling when return of drilling mud slows or ceases or a spill (frac-out) is observed by the driller or biological monitor, contain the spill (by measures such as silt fencing/hay bales), pump drilling mud from the containment area to a drill rig or frac truck, and refrain from drilling until containment is completed. During drilling, fluid returns and levels shall be visually monitored and real-time downhole pressure shall be monitored such that a potential frac-out is detected immediately. The contingency plan would also include corrective actions during drilling as well as spill contingency procedures, comprised of notification, equipment, supplies, and staffing requirements. Biological monitors, hired by the Applicant, will be required to be present during HDD operations to observe potential frac-out conditions and resulting impacts, along the drill route. Supplies to mitigate a frac-out will need to be available on site including Material Safety Data Sheets for all mud and additives, containment materials such as sand bags and silt fencing, pumps and hoses for remediation, and ready availability of a vacuum truck(s), geotextile booms, and storage tanks. Mitigation Measure BIO-7B and Mitigation Measure BIO-3 provides more specific detail of the prevention measures utilized to avoid drilling mud contamination to surface waters and wetlands and specifically to the salt marsh harvest mouse, respectively.

PD-2 *We understand that HDD operations are typically conducted on a 24/7 basis. The DEIR is not clear on the proposed hours of the HDD operation. Impacts from a HDD operation will increase the levels of light, glare and noise in the Project area. These potential impacts will be more significant at night.*

RESPONSE: Section 3.6.1 states that, "For the pipeline pull-back operations, work would proceed 24-hours per day for 2 to 3 days for the HDD crossings."

The remainder of the pipe installation by HDD would occur over 12 hour shifts, 6 days per week.

As described in Section 4.11.7, Summary of Impacts and Mitigation, the primary construction-related noise source in the Waterbird Regional Preserve vicinity would be the trenching on the south side of Waterfront Road near the preserve. Most of the construction would occur between the hours of 7:00 a.m. and 7:00 p.m. on weekdays with some construction possible between 8:00 a.m. and 6:00 p.m. on Saturdays. Waterbird Regional Preserve is open to the public between 5:00 am and 10:00 pm (EBRPD 2009); therefore, all construction hours would occur during noise-sensitive hours at this location. Trenching in this location is expected to last no more than five days. This location would also be the exit location for the HDD, but drilling noise would occur at the entry point inside the Shell Martinez Refinery, about 2,500 feet from the public use areas at the preserve. Mitigation measures NOI-1A, 1B, and 1C, identified in Section 4.11.7 of the EIR, would reduce noise impacts to less than significant.

BIO-3 *Night-time construction would require installation and operation of high-intensity lighting facilities near the Marsh that may result in adverse effects to wildlife within the Preserve (see "Ecological Consequences of Artificial Night Lighting" by Rich and Longcore, 2006). What measures will be implemented to mitigate this potentially significant effect?*

RESPONSE: It is anticipated that night lighting would be required only two to three times during the HDD installation. Due to the limited occurrence, five days of night-time construction, no significant impacts to wildlife within the preserve are anticipated. However, the contractor will be required to use shielded lighting that is directed specifically onto work areas to minimize light spillover to offsite areas.

NOI-4 *A recent analysis conducted by Contra Costa County for the proposed Praxair Pipeline showed that HDD operations may generate more than 100 decibels of noise. The DEIR on page 4.11-1 states that noise levels in the Preserve would only increase by 2.9 decibels above the ambient noise level of 65 decibels. There appears to be a significant discrepancy between the Praxair and Air Products' EIR analyses of noise impacts. Please explain.*

RESPONSE: Section 4.11 Noise and Vibration, Impact NOI-1 indicates that the HDD exit point for the Project would be located at Waterbird Regional Preserve. The primary source of construction noise at Waterbird Regional Preserve would be trenching. As discussed in Section 4.11.7 (Summary of Impacts and Mitigation) under NOI-1 in the Draft EIR, noise generated by trenching would raise the ambient noise level at the picnic and nature trail area of Waterbird Regional Preserve by 2.9 dB for less than five days during construction. Noise associated with HDD operations would take place at the entry point within the Shell Martinez Refinery. This area is located next to Highway 680, which results in higher noise levels than in other areas in the Preserve, and as such, is a less sensitive area. This accounts for the discrepancy between the Praxair and Air Products' noise impact analyses.

BIO-5 *The DEIR states on page 4.4-32 that impacts to saltmarsh harvest mouse will be mitigated by limiting construction to daylight hours. Would this also apply to HDD operations? Why is noise mitigation warranted for harvest mouse, but not for other wildlife or people?*

RESPONSE: Mitigation Measure BIO-3 lists 13 protection measures that, in combination, will avoid take and/or habitat destruction. As stated in the Project Description (Section 3.6), HDD operations will have 24-hour operations for two or three days during the pipe pull-back. Mitigation Measure BIO-3 has been revised to be consistent with Section 3.6 of the Project Description as follows: Construction shall be restricted to daylight hours, beginning when the sun rises and ending when the sun goes down, with the exception of HDD operations, which may have 24-hour operations for two or three days.

See also Response to Comment L-8 NOI-4 concerning noise impacts on sensitive receptors.

BIO-6 *Mitigation Measure BIO-8 on page 4.4-37 of the DEIR states that some trees may need to be removed (or pruned) in order to place the HDD tracing system. It's unclear from the Project exhibits if this might include any trees within the Preserve. In general the District does not permit the removal of trees from its parks.*

Response: Mitigation Measure BIO-8 has been revised as follows:

Prior to initiating construction activities in the area to be cleared for HDD tracking, ~~Air Products~~ the Applicant shall consult with the EBRPD to determine if any trees requiring removal are located on EBRPD property. If trees on EBRPD property require removal, the Applicant shall obtain EBRPD's approval and comply with required conditions of approval. The applicant will also obtain tree removal permits from the Contra Costa County and the City of Martinez prior to initiating construction activities in the area to be cleared for HDD tracking.

Trees that are not on EBRPD property will be identified during permitting, as stated in Mitigation Measure BIO-8, "Replacement trees shall be planted at site to be determined in consultation with the property owner, who shall also be consulted about the species of the replacement trees. The replacement trees shall be monitored for two years to ensure that they establish successfully."

TRA-7 *Another concern is how park visitors and District staff will access the Preserve during Project construction. The DEIR states under Mitigation Measure TRANS-1A on page 4.14-4 that there will be lane closures on Waterfront Road. This may impede access to the Preserve. Access roads must remain accessible to maintenance and emergency vehicles during project construction. The proposed "Traffic Control and Implementation Plan" described on page 4.15-11 of the DEIR should be developed with the District to assure that the District's access requirements are addressed.*

RESPONSE: Mitigation Measure TRANS-1F has been revised as follows: The contractor shall provide traffic control to maintain a safe environment for vehicles traveling through the work zone, including vehicles needing emergency access, and construction workers inside the work zone. The contractor shall submit a Worksite Traffic Control Plan showing the traffic control measures and/or details for vehicles and pedestrians affected by the construction at that site. The pits on each side of the crossing must be protected, and the driver must be made aware of the construction ahead. The specific work hours in which the contractor may implement the Worksite Traffic Control Plan will need to be approved by the corresponding agency. EBRPD access requirements will be included in the worksite Traffic Control Plan.

OTH-8 *Appendix B of the DEIR provides a Storm Water Pollution Prevention Plan (SWPP). The project description on page 3 of the SWPP describes the project location as the "City of Carson, CA". Is the SWPP provided with the DEIR intended to be an example of a SWPP that would be prepared for the subject Project or is this an error? Please clarify.*

RESPONSE: As stated in Section 4.8.7 of the EIR, "A sample SWPPP, prepared by Air Products for a similar project, is provided in Appendix B."

BIO-9 *Project construction will introduce non-native vegetation into the Preserve. Often construction equipment and/or imported fill sources bring weed seeds that establish along project rights-of-way, access roads, and laydown and staging areas. Areas in or adjacent to the Preserve and McNabney Marsh will need to be maintained and monitored on a regular basis to control and remove non-native plant species. Project construction within the Preserve will be subject to the terms and conditions contained in the District's Encroachment Permit.*

RESPONSE: In Chapter 2 (Introduction) of the Draft EIR, Table 2-1 identifies permits and approvals required for operation and construction of the Project. The table includes an EBRPD encroachment permit. The Applicant will work with EBRPD to meet requirements in support of the permit application.

In addition, Section 4.4.7 (Summary of Impacts and Mitigation) of the Draft EIR, Impact BIO-1 states that "As well as replacing the topsoil with its seed bank, revegetation plantings would consist of species found in surrounding habitats. If seed is purchased, the selection shall be made according to the preferences of the respective landowners. Reseeding shall consist primarily of native grasses and shrubs. The Applicant (Air Products) shall use seed mixes selected with the assistance of a qualified revegetation specialist with demonstrated experience and expertise in revegetation, and shall contain native species that are indigenous to the Project area and the adjacent habitat. If enough native seed is not available, and non-natives must be included in the seed mix, they would be cereal grains that will not persist in the environment. The seed mix shall contain native species known to compete well against invasive nonnative species."

PD-10 *Monitoring of Project facilities should be conducted to determine any potential product leakage. This should include aerial surveys, visual inspections, corrosion detection, pressure testing and other measures to assure that the facilities remain safe and minimize risk of product release. The DEIR on page 3-33 states that surface patrols would be conducted every three months. For pipeline routes at Waterbird, the District would likely require monthly inspections.*

RESPONSE: Air Products would conduct monthly EFV and block valve inspections and gas leak detection in the regions of EFVs and block valve flanges, monthly inspections of the pipeline within the Waterbird Regional Preserve, and every three months surface patrols would cover the entire pipeline route.

PD-11 *It may be necessary to repair or replace Project facilities during the life of the Project. Pipelines in other parks have been subject to significant corrosion and have had to be replaced. This may require excavation, trenching, drilling and other measures that are disruptive to the Preserve.*

RESPONSE: As discussed in Section 3.10, "Air Products designs, constructs, and operates its pipelines for a 100-year continuous-use life span." As stated in Section 4.7.6, for the pipelines, corrosion control would be accomplished through exterior coating of the pipe and through the use of a cathodic protection system. Section 3.9.1, Operation and Maintenance, states "Maintenance operations would include testing of the cathodic protection system, testing of the EFV and shutdown operations, and maintenance of the valves and sensors along the pipeline route."

Due to regular testing and maintenance of these new pipelines, it is unlikely that major repairs would be necessary. Any pipeline maintenance or repair activities that would require activity in the preserve would be coordinated with EBRPD.

INT-12 *A monitoring, maintenance and repair plan should be developed by the Applicant that addresses these needs. Such activities will require review and approval by the District. The Applicant would also need to obtain a District Encroachment Permit for maintenance activities.*

RESPONSE: See Response to Comment L-8 PD-10. As shown in Table 2-1 of the Draft EIR, the Project would require an encroachment permit and a discretionary easement from the EBRPD. The Applicant will prepare and submit plans and other materials necessary to acquire these permissions from EBRPD.

INT-13 *The DEIR states on page 2-5 that the District would provide a "Discretionary Easement". On page 3-31 the DEIR states that a ten-foot wide "permanent easement" would be required. Should the District agree to allow the proposed pipeline to be constructed through Waterbird Preserve it would likely be through a 25-year lease or other similar agreement; it would not be a permanent right as stated in the DEIR.*

RESPONSE: As stated in Section 3.7.1, a permanent easement would be required within the refineries. This is a different easement than the discretionary easement that would be required from the EBRPD. Section 3.7.1 has been revised as follows: "Where the pipeline corridor transverses Waterbird Preserve, Air Products would need to obtain a discretionary easement from the EBRPD."

S-BCDC

bcdc

Making San Francisco Bay Better

CONTRA COSTA

2009 OCT 23 P 2:03

DEPARTMENT OF CONSERVATION AND DEVELOPMENT

October 20, 2009

Contra Costa County Department
of Conservation and Development
651 Pine Street, Fourth Floor, North Wing
Martinez, CA 94553

ATTENTION: Lashun Cross

SUBJECT: Comments to Draft Environmental Impact Report for Air Products Local Area Pipeline Network Project, Contra Costa County (BCDC Inquiry File No. CC.MC.7305.1)

Ladies and Gentlemen:

We have received notice that the Contra Costa County Department of Conservation and Development has prepared a Draft Environmental Impact Report (DEIR) for the Air Products Local Area Pipeline Network Project involving the construction of two, approximately 2.6-mile-long pipelines to transport hydrogen and fuel gas between the Air Products Hydrogen Plant within the Tesoro Refinery and the Shell Refinery, in Contra Costa County.

The proposed project would be located within the Commission's jurisdiction. Therefore, the project proponent will need the Commission's authorization before any work may begin at the site. Due to California state budgeting constraints and staff workload, we are unable to review and comment on the DEIR within the required comment period. Since the proposed project may raise issues with respect to our laws and policies, we encourage the project proponent to contact our office when it is ready to seek BCDC authorization for the project. We would appreciate it if you advised the project proponent to obtain the required BCDC authorization prior to any construction. INT-1

Thank you for sending us the notice for the project. Please contact us if the County has any questions about the Commission's authorization procedures or policies at (415) 352-3600.

Sincerely,

MING YEUNG
Coastal Planning Analyst

MY/mm

State of California • **SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION** • *Arnold Schwarzenegger, Governor*
50 California Street, Suite 2600 • San Francisco, California 94111 • (415) 352-3600 • Fax: (415) 352-3606 • info@bcdc.ca.gov • www.bcdc.ca.gov

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2.2.9 Letter L-9: L-BCDC

Responses to Letter from Ming Yeung—Coastal Planning Analyst, San Francisco Conservation and Development Commission, October 20, 2009

INT-1 *The proposed project would be located within the Commission's jurisdiction. Therefore, the project proponent will need the Commission's authorization before any work may begin at the site. Due to California state budgeting constraints and staff workload, we are unable to review and comment on the DEIR within the required comment period. Since the proposed project may raise issues with respect to our laws and policies, we encourage the project proponent to contact our office when it is ready to seek BCDC authorization for the project. We would appreciate it if you advised the project proponent to obtain the required BCDC authorization prior to any construction.*

RESPONSE: Chapter 2 Introduction, Table 2-1 has been revised to indicate that approval from the San Francisco Bay Conservation and Development Commission is required as follows: "The installation of the pipeline within the salt marsh and ponds along Waterfront Road and the HDD of McNabney Marsh ~~could~~ would require the Bay Conservation and Development Commission's approval."

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L-CCCPWD

Contra Costa County
Public Works
Department

Julia R. Bueren, Director
Deputy Directors
R. Mitch Avalon • Brian M. Balbas
Stephen Kowalewski • Patricia McNamee

Memo

DATE: October 21, 2009

TO: Monish Sen, Engineering Services Division

FROM: Rich Shimano, Transportation Engineering Division

SUBJECT: **PERMIT LP072026**
Comments on the Draft EIR: Air Products Local Area Pipeline Network Project

FILE: #LP 072026

MESSAGE:

The **Transportation Engineering Division** and **Traffic Engineering Section** of the Contra Costa County Department of Public Works have reviewed the Draft Environmental Impact Report (DEIR) for the Air Products Local Area Pipeline Network Project proposed in the Martinez area.

Please express our appreciation to Lashun Cross for the opportunity to review this draft, and please let him know that we are satisfied that all comments on prior ADEIRs for this project have been addressed as requested. We have one new comment, as follows:

1. On **page 4.15-10** under "Trip Generation and Distribution," the project start date of May 2009 is incorrect and should be updated. TRA-1

Please feel free to contact me at (925) 313-2168 if you have any questions.

*** end of memo ***

RS:
G:\transeng\EIR\CDD\LP 07-2026 - Air Products Local Area Pipeline\2009-11-06 DEIR\memo-2009-11-06 - Air Prod Pipeline DEIR.doc
Cc: M. Halle, Transportation Engineering
M. de la O, Transportation Engineering

"Accredited by the American Public Works Association"
255 Glacier Drive Martinez, CA 94553-4825
TEL: (925) 313-2000 • FAX: (925) 313-2333
www.cccpublicworks.org

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2.2.10 Letter L-10: L-CCCPWD

Responses to Letter from Rich Shimano—Transportation Engineering Division, Contra Costa County Department of Public Works, October 22, 2009

TRA-1 *On page 4.15-10 under "Trip Generation and Distribution," the project start date of May 2009 is incorrect and should be updated.*

RESPONSE: Section 4.15.7, Impact TRANS-1, has been revised as follows: ~~The proposed Project is scheduled to begin construction in May 2009 and is expected to occur over a four-month period.~~ Construction is anticipated to start in the second or third quarter of 2012 depending on the receipt of all of the permits.

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11/06/2009 16:08 FAX 925 930 5592 CONTRA COSTA FIRE 002/002

L-CCCFPD

Contra Costa County **Fire Protection District**

November 9, 2009

Ms. Lashun Cross
Contra Costa County
Department of Conservation and Development
651 Pine Street, Fourth Floor - North Wing
Martinez, CA 94553

Subject: Draft Environmental Impact Report
Air Products Local Area Pipeline Network Project
Tesoro Golden Eagle Refinery to the Martinez Shell Refinery, Martinez
CCCFPD Project No.: 113415-PL

Dear Ms. Cross:

We have reviewed the Draft Environmental Impact Report for the proposed Air Products 2.6 mile hydrogen and fuel gas pipeline project between the Tesoro Golden Eagle Refinery and the Shell Martinez Refinery. This is a multijurisdictional project and will involve several regulatory agencies. The authority of Contra Costa County Fire Protection District (CCCFPD) is limited to the Martinez Shell Refinery property. The following is required for Fire District approval in accordance with the Government Code and the 2007 California Fire Code (CFC):

> The pipeline operator shall submit three (3) complete sets of plans and specifications of the subject project to the Fire District for review and approval ***prior to*** construction to ensure compliance with minimum requirements related to fire and life safety. Plan submittal shall also include a map or suitable diagram showing the location of the pipeline, a description of all products transported within the pipeline, and a contingency plan for pipeline emergencies. Additionally, the pipeline operator shall develop and implement a comprehensive integrity management program for the assessment and maintenance of the proposed pipeline. Plan review fees will be assessed at that time. (105.7.3 and 501.3) CFC

INT-1

Our preliminary review comments shall not be construed to encompass the complete project. Additional plans and specifications may be required after further review.

If you have any questions regarding this matter, please contact this office at (925) 941-3539.

Sincerely,

Ted Leach
Fire Inspector

TL/cm

File: 113415.ltr

2010 Geary Road • Pleasant Hill, California 94523-4619 • Telephone (925) 941-3300 • Fax (925) 941-3309
East County • Telephone (925) 757-1303 • Fax (925) 941-3329 West County • Telephone (510) 374-7070
www.cccfpd.org

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2.2.11 Letter L-11: L-CCCFPD

Responses to Letter from Ted Leach—Fire Inspector, Contra Costa County Fire Protection District, November 9, 2009

INT-1 *The pipeline operator shall submit three (3) complete sets of plans and specifications of the subject project to the Fire District for review and approval prior to construction to ensure compliance with minimum requirements related to fire and life safety. Plan submittal shall also include a map or suitable diagram showing the location of the pipeline, a description of all products transported within the pipeline, and a contingency plan for pipeline emergencies. Additionally, the pipeline operator shall develop and implement a comprehensive Integrity management program for the assessment end maintenance of the proposed pipeline. Plan review fees will be assessed at that time. (105.7.3 and 501.3) CFC.*

RESPONSE: Air Products will submit all Project plans and specifications required by the Contra Costa County Fire Protection District for review and approval prior to construction.

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Sent By: CALTRANS TRANSPORTATIO PLANNING; 510 286 5560; Nov-9-09 5:34PM; Page 1/2

S-Caltrans

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 622-5491
FAX (510) 286-5559
TTY 711

Flex your power!
Be energy efficient!

November 9, 2009

CC680596
SCH #2009032014

Ms. Lashun Cross
Contra Costa County
651 Pine Street, 4th Floor – North Wing
Martinez, CA 94553

Dear Ms. Cross:

Local Area Pipeline Network Project (County File #: LP07-2026) – Draft Environmental Impact Report (DEIR)

Thank you for including the California Department of Transportation (Department) in the environmental review process for the Local Area Pipeline Network Project (County File #: LP07-2026). The following comments are based on the DEIR. As the lead agency, Contra Costa County is responsible for all project mitigation, including any needed improvements to state highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. Required roadway improvements should be completed prior to issuance of the Certificate of Occupancy. Since an encroachment permit is required for work in the State right of way (ROW), and the Department will not issue a permit until our concerns are adequately addressed, we strongly recommend that Contra Costa County work with both the applicant and the Department to ensure that our concerns are resolved during the California Environmental Quality Act (CEQA) process, and in any case prior to submittal of a permit application. Further comments will be provided during the encroachment permit process.

Encroachment Permit

Please be advised that any work or traffic control that encroaches onto the State ROW requires an encroachment permit that is issued by the Department. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to the following address: INT-1

"Caltrans improves mobility across California"

S-Caltrans

Ms. Cross/ Contra Costa County
November 9, 2009
Page 2

Michael Condie, District Office Chief
Office of Permits
California DOT, District 4
P.O. Box 23660
Oakland, CA 94623-0660

INT-1, con't

Traffic-related mitigation measures should be incorporated into the construction plans during the encroachment permit process. See the website link below for more information.
http://www.dot.ca.gov/hq/traffops/developserv/permits/

Please feel free to call or email Luis Melendez of my staff at (510) 286-5606 or Luis_Melendez@dot.ca.gov with any questions regarding this letter.

Sincerely,

Lisa Carboni

LISA CARBONI
District Branch Chief
Local Development – Intergovernmental Review

c: State Clearinghouse

"Caltrans improves mobility across California"

ent By: CALTRANS TRANSPORTATIO PLANNING; 510 286 5560; Nov-9-09 5:34PM; Page 2/2

2.2.12 Letter L-12: S-Caltrans

Responses to Letter from Lisa Carboni—District Branch Chief, Office of Permits, California Department of Transportation, November 9, 2009

INT-1 *Please be advised that any work or traffic control that encroaches onto the State ROW requires an encroachment permit that is issued by the Department. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to the following address: Michael Condi, District Office Chief, Office of Permits, California DOT, District 4, P.O. Box 23660, Oakland, CA 94623-0660.*

RESPONSE: Chapter 2, Introduction, Table 2-1 indicates that "Construction would not be on state right-of-way but construction may have indirect effects." Table 2-1, which lists necessary Project permits, includes the Caltrans encroachment permit.

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C H A P T E R 3

Mitigation Monitoring and Reporting Program

INTRODUCTION

The California Environmental Quality Act (CEQA) requires the adoption of feasible mitigation measures to reduce the severity and magnitude of potentially significant environmental impacts associated with project development. The Final EIR for the Project includes mitigation measures to reduce the potential environmental effects of the proposed Project.

Monitoring of the implementation of adopted mitigation measure is required by Public Resources Code Section 21081.6. The Final EIR for the Project provides a list of project-specific mitigation measures and describes the process whereby the mitigation measures would be monitored. Following certification of the Final EIR and approval of this Mitigation Monitoring and Reporting Program (MMRP) by Contra Costa County (County), the mitigation measure included in the Final EIR would be monitoring in the manner specified by the MMRP.

PURPOSE

The purpose of the MMRP is to ensure compliance with all mitigation measures designed to mitigate or avoid potentially significant adverse environmental impacts resulting from the Project, identified in the Final EIR. Implementation of the MMRP shall be accomplished by Air Products and Chemicals, Inc. (Project Applicant). Project-specific mitigation measures will be implemented during the time specified in the MMRP and reports will be generated to document implementation of the mitigation measure. Copies of all reports identified in the MMRP will be sent to the County for submittal to responsible agencies.

SUMMARY PROJECT DESCRIPTION

The Project Applicant proposes the construction of two new 2.6-mile pipeline networks between two hydrogen plants, one located within the Tesoro Golden Eagle Refinery (Tesoro) and the other within the Shell Martinez Refinery (Shell), both of which are in Contra Costa County. The proposed Project would deliver hydrogen to the refineries for the production of cleaner burning fuels as required by the federal and state Clean Air Act. A fuel-gas pipeline would be co-located with the proposed hydrogen pipeline to allow for the recycling of this refinery-generated gas for use as a feed source for hydrogen production.

The proposed Project would connect the Air Products hydrogen plants to a hydrogen and fuel-gas pipeline network, which would allow Air Products to supply hydrogen to and from the two connected refineries. Hydrogen is used by the two refineries to reduce the level of sulfur and other undesired pollutants in various types of transportation fuels, including gasoline and diesel fuel. The Tesoro Refinery currently receives its hydrogen from two on-site hydrogen plants, one owned and operated by Air Products and one owned and operated by Tesoro. The Shell Refinery

receives its hydrogen from three on-site hydrogen plants, one owned and operated by the Project Applicant and two owned and operated by Shell. The Project would also allow the Project Applicant to purchase, and transport fuel gas generated at the refineries to the hydrogen plants, where it could replace natural gas that is currently used for hydrogen production.

The proposed pipelines would originate in Contra Costa County at the existing Air Products Hydrogen Plant at the Tesoro Golden Eagle Refinery and travel westward about 2.6 miles in an unpopulated area along Waterfront Road, where they would connect with the existing Air Products Hydrogen Plant at the Shell Martinez Refinery in Martinez. The two pipelines, one for hydrogen and the other for fuel gas, would be installed in the same trench to minimize construction impacts.

Each of the pipelines would include the following major components and features:

- Construction of two buried pipelines, each approximately 2.6 miles of steel pipe, with an outside diameter of 8.0 inches, coated, and cathodically protected from external corrosion
- Installation of two 8-inch excess flow valves on each pipeline, at each end of the pipeline, within each of the refineries, for a total of four
- Installation of two 8-inch block valves on each pipeline, one at the end of the pipeline at each of the two refineries, for a total of four block valves
- Horizontal Direction Drilling (HDD) under Interstate Highway 680 and adjacent McNabney Marsh
- Conventional bore construction in three locations under roads and railroads

RESPONSIBILITIES AND DUTIES

Contra Costa County will be responsible for ensuring that mitigation measures are implemented prior to, during, and after construction of the Project. The Project Applicant will be responsible for mitigation measures implementation, unless otherwise noted in the MMRP table. In general, monitoring will consist of demonstrating that mitigation measures were implemented, and that responsible entities monitored the implementation of the measures. The Project Applicant is responsible for ensuring that copies of all reports identified in the MMRP are sent to the County for submittal to responsible agencies.

MITIGATION MONITORING AND REPORTING PLAN MATRIX

All project-specific mitigation measures included in the Final EIR would be monitored in conjunction with the MMRP and Project. The following MMRP matrix includes all the applicable mitigation and monitoring information for the Project.

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix					
Mitigation Measure	**Timing**	**Monitoring or Reporting Action**	**Monitoring or Reporting Entity**	**Enforcement Entity**	**Check-off**
Air Quality					
AQ-2: To minimize particulate matter emissions, the Project shall implement the following fugitive dust control measures suggested by the BAAQMD CEQA Guidelines (2010): *Basic Control Measures* The following controls shall be implemented along the construction corridor and at Horizontal Directional Drilling (HDD) and conventional bore sites: • Water all active construction areas at least twice daily. • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard. • Pave, apply water three times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. • Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. • Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. *Enhanced Control Measures* The following measures shall be implemented at construction sites that are greater than 4.0 acres in area: • All basic control measures listed above. • Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more). • Enclose, cover, water twice a day, or apply (nontoxic) soil binders to exposed stockpiles (dirt, sand, etc.). • Limit traffic speeds on unpaved roads to 15 miles per hour. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways. • Replant vegetation in disturbed areas as quickly as possible. In addition, the Project shall implement the following measures to reduce PM emissions from diesel exhaust: • Grid power shall be used instead of diesel generators where it is feasible to connect to grid power. • The Project specifications shall include 13 CCR Sections 2480 and 2485, which limit the idling of all diesel-fueled commercial vehicles (weighing over	Throughout construction activities	Conduct periodic on-site construction monitoring to confirm implementation of basic, enhanced, PM reduction measures and submit documentation verifying implementation to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
10,000 pounds, both California- or non-California-based trucks) to 30 seconds at a school or 5 minutes at any location. In addition, the use of diesel auxiliary power systems and main engines shall be limited to 5 minutes when within 100 feet of homes or schools while the driver is resting. • The Project specifications shall include 17 CCR Section 93115, Airborne Toxic Control Measure for Stationary Compression Ignition Engines, which specifies fuel and fuel additive requirements; emission standards for operation of any stationary, diesel-fueled, compression-ignition engines; and operation restrictions within 500 feet of school grounds when school is in session. • A schedule of low-emissions tune-ups shall be developed and such tune-ups shall be performed on all equipment, particularly for haul and delivery trucks. • Low-sulfur fuels shall be used in all stationary and mobile equipment. In accordance with the BAAQMD CEQA Guidelines (2010), these measures would reduce these emissions to a less-than-significant level.					
Biological Resources					
BIO-1: Topsoil from graded and trenched areas shall be stockpiled separately from subsoil. Areas disturbed by construction activities shall have contours returned to pre-project state and topsoil replaced as the top layer. As well as replacing the topsoil with its seed bank, revegetation plantings would consist of species found in surrounding habitats. If seed is purchased, the selection shall be made according to the preferences of the respective landowners. Reseeding shall consist primarily of native grasses and shrubs. The Applicant (Air Products) shall use seed mixes selected with the assistance of a qualified revegetation specialist with demonstrated experience and expertise in revegetation, and shall contain native species that are indigenous to the Project area and the adjacent habitat. If enough native seed is not available, and non-natives must be included in the seed mix, they would be cereal grains that will not persist in the environment. The seed mix shall contain native species known to compete well against invasive nonnative species. This mitigation measure would reduce impacts to less than significant.	Prior to start of construction activities	Survey pre-project topography and submit report to Contra Costa County.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
	Throughout construction activities	Conduct periodic on-site construction monitoring to confirm topsoil and subsoil are stockpiled separately and submit documentation verifying implementation to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
	Post-construction, prior to revegetation	If seed is purchased, provide documentation of coordination with	Project Applicant's qualified revegetation specialist	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
		respective landowners to Contra Costa County Department of Conservation and Development.			
		Provide documentation of seed mixes and species selected for replanting to Air Products and Contra Costa County Department of Conservation and Development.	Project Applicant's qualified revegetation specialist	Contra Costa County Department of Conservation and Development	Initials: Date:
BIO-2: A qualified biologist shall conduct focused floristic surveys for soft bird's-beak, Mason's lilaeopsis, Suisun marsh aster, Delta tule pea, and Congdon's tarplant throughout the Project area prior to initiation of project construction. These surveys are to be conducted during the flowering period for each species. Mason's lilaeopsis (April to November), soft bird's beak (July to November), Suisun marsh aster (May to November), Delta tule pea (May to September), Congdon's tarplant (May to November). If these species are not found within expected impact areas, then no further mitigation shall be required. If plants found in the construction disturbance area can be avoided during construction, then the population(s) shall be protected with construction fencing; worker training on avoidance shall also be conducted. If plants found in proposed construction disturbance areas cannot be avoided, then USFWS and CDFG shall be consulted and appropriate mitigation measures shall be developed and approved by these agencies before construction can begin.	Prior to start of construction activities, during flowering period for each species	Submit focused floristic surveys for soft bird's-beak, Mason's lilaeopsis, Suisun marsh aster, Delta tule pea, and Congdon's tarp, including documentation of absence of sensitive plants, to Contra Costa County Department of Conservation and Development, USFWS, and CDFG.	Project Applicant's qualified biologist	Contra Costa County Department of Conservation and Development, USFWS, and CDFG.	Initials: Date:
	If identified plants can be avoided during construction	Conduct periodic on-site monitoring to confirm worker avoidance and installation and maintenance of construction fencing	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
		and submit verification documentation to Contra Costa County Department of Conservation and Development.			
	If plants cannot be avoided during construction	If sensitive plants are determined present, submit documentation showing appropriate mitigation measures developed in consultation with USFWS and CDFG to Contra Costa County Department of Conservation and Development.	Project Applicant's qualified biologist	Contra Costa County Department of Conservation and Development, USFWS, and CDFG	Initials: Date:
		Conduct periodic on-site monitoring to confirm implementation of mitigation measures and submit verification documentation to Contra Costa County Department of Conservation and Development, USFWS, and CDFG.	Project Applicant's qualified biologist	Contra Costa County Department of Conservation and Development, USFWS, and CDFG	Initials: Date:
BIO-3: Impacts on the salt marsh harvest mouse will be mitigated to less than significant by utilizing the following protection measures: • Open trenches in areas where salt marsh harvest mice reside shall be inspected by the biological monitor each morning before construction operations begin.	Prior to construction activities	Submit results of pre-construction surveys to Project Applicant, Contra Costa County Department of Conservation and	Project Applicant's biological monitor	Contra Costa County Department of Conservation and Development, UFWS, and CDFG	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
• If a mouse is observed on site during construction operations, a salt marsh harvest mouse specialist with a valid state and federal collecting permit will be contacted to relocate the animal out of harm's way prior to any construction activities in the area. The specialist will be approved to conduct such activities on the Project by USFWS and CDFG prior to initiating construction. • Prior to construction activities, a biologist with a permit from USFWS and CDFG shall survey the construction staging areas. • Construction shall be restricted to daylight hours, beginning when the sun rises and ending when the sun goes down, with the exception of HDD operations, which may have 24-hour operations for two or three days. • A biological monitor shall be present during construction activities in the marsh areas. • When Project activities are in or adjacent to suitable habitat, vehicles shall be confined to existing roads where possible and disturbed areas shall be revegetated with brackish marsh species. • Crews shall use matting, pontoon boards, or other comparable methods whenever feasible to minimize impacts to the existing vegetation. A qualified biologist shall verify the placement of mats before their placement to minimize habitat impacts. Crews shall work exclusively from mat boards and boardwalks to minimize trampling of vegetation in sensitive habitats. • Exclusion fencing, 3 feet in height with no vegetation overhang, shall be installed, all along both sides of the Waterfront Road portion of the alignment to segregate the work areas and adjacent brackish marsh habitat. The fence would extend 5 feet beyond the work area and extend into the marsh by three feet to deter mice from entering the work area. • Prior to the commencement of construction activities, a qualified biologist shall flag the location of the exclusion fence. The fence shall be located outside of marsh habitat and above the high-tide line. A qualified biologist shall oversee fence installation, and installation should be timed such that no exceptional high tides have occurred in the week prior to installation. • Soil on both sides of the fence should be compacted after installation. • The exclusion fence shall be maintained during the entirety of the construction activities in the marsh areas. • A qualified biologist shall inspect the fencing daily to ensure the integrity of the fence. If a break in the fence is identified, qualified engineers will repair them immediately on site. Exclusion fences that are damaged and become unsuitable for their intended purpose will be removed and replaced with new		Development, UFWS, and CDFG.			
		Submit verification of proper fence flagging and installation outside of marsh habitat and above high-tide line to Contra Costa County Department of Conservation and Development.	Project Applicant's biological monitor	Contra Costa County Department of Conservation and Development	Initials: Date:
	During construction activities in marsh areas	Conduct daily on-site monitoring to confirm that appropriate areas have been flagged and fenced and the appropriate use of matting and pontoon boards, and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant's biological monitor	Contra Costa County Department of Conservation and Development	Initials: Date:
	If a salt marsh harvest mouse is identified during construction	Submit report documenting area of discovery, relocation methods, and relocation area to Contra Costa County Department of Conservation and Development, USFWS, and CDFG.	Project Applicant's agency approved salt marsh harvest mouse specialist	Contra Costa County Department of Conservation and Development, UFWS, and CDFG	Initials: Date:
	Within sixty days of construction completion	Submit report detailing sensitive species encountered	Project Applicant's agency approved salt marsh harvest mouse	Contra Costa County Department of Conservation and	Initials:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
fences under supervision of the biological monitor. • Within 60 days of completion of construction activities, the onsite biological monitor will prepare a report for the USFWS and CDFG documenting any encounters with sensitive species and the effectiveness and practicality of the mitigation measures. In addition, any special-status species sightings during the project will be submitted for insertions into the CNDDB.		to Contra Costa County Department of Conservation and Development, USFWS, CDFG, and CNDDB.	specialist	Development, UFWS, and CDFG	Date:
• The contractor will be required to use shielded lighting that is directed specifically onto work areas to minimize light spillover to offsite areas.	During construction each morning before construction operations begin	Submit documentation of daily site inspections, verifying no salt marsh harvest mice in open trenches to Contra Costa County Department of Conservation and Development.	Project Applicant's agency approved salt marsh harvest mouse specialist	Contra Costa County Department of Conservation and Development	Initials: Date:
BIO-4: Any accidental discharge of drilling mud. shall be contained immediately upon discovery. The pipeline contractor shall prepare a site-specific contingency plan for inadvertent frac-out, which would address how potential impacts from HDD operations shall be kept to a minimum. This Plan must be approved by the County prior to construction. The site-specific contingency plan shall include components such as: • Cease drilling when return of drilling mud slows or ceases, or when the driller or biological monitor observes a spill. • Employ spill-containment measures (installing silt fencing and/or hay bales). • Notify USFWS, NMFS and CDFG of incident. • Pump drilling mud from the containment area to a drill rig or frac truck. • Refrain from drilling until containment is completed. • The biological monitor shall be on site during the HDD setup procedures and placement of guidance system wires. The biological monitor shall assist the Applicant's contractor with monitoring for frac-outs, containment, and cleanup procedures as needed. Any spill shall be cleaned up and natural revegetation of the area shall be monitored. If revegetation does not occur on its own within one year, the Applicant shall seed and/or plant native vegetation appropriate for the area. The project biologist shall inform the appropriate agencies (Contra Costa County, USFWS, NMFS, CDFG, and/or San Francisco Bay Regional Water Quality Control Board (RWQCB]) of the spill and any associated impacts, and shall monitor the implementation of cleanup	Prior to construction	Submit a site-specific contingency plan for inadvertent frac-out containing required components to Contra Costa County Department of Conservation and Development.	Project Applicant's pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
	During the HDD setup procedures and placement of guidance system wires.	Submit documentation of daily site monitoring to Contra Costa County Department of Conservation and Development.	Project Applicant's biological monitor	Contra Costa County Department of Conservation and Development	Initials: Date:
	Immediately after any accidental discharge of drilling mud.	Submit reports detailing inadvertent frac-outs along with containment, cleanup, and reseeding procedures to Contra Costa	Project Applicant's biological monitor	Contra Costa County Department of Conservation and Development, USFWS, NMFS, CDFG, and/or San Francisco RWQCB	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
procedures required as a result. The contingency plan and necessary spill cleanup materials shall be kept on site during the HDD construction. The Plan shall contain contact phone numbers for an emergency coordination in the event of a frac out.		County Department of Conservation and Development, USFWS, NMFS, CDFG, and/or San Francisco RWQCB			
	Following inadvertent frac-out	Submit revegetation monitoring reports to Contra Costa County Department of Conservation and Development, USFWS, NMFS, CDFG, and/or San Francisco RWQCB.	Project Applicant's biological monitor	Contra Costa County Department of Conservation and Development, USFWS, NMFS, CDFG, and/or San Francisco RWQCB	Initials: Date:
	If revegetation does not occur naturally within one year	Submit plan that identifies native seeding and/or plantings selected for the area to Contra Costa County Department of Conservation and Development, USFWS, NMFS, CDFG, and/or San Francisco RWQCB.	Project Applicant's biological monitor	Contra Costa County Department of Conservation and Development, USFWS, NMFS, CDFG, and/or San Francisco RWQCB	Initials: Date:
BIO-5A: Special-Status Bird Species. CDFG and USFWS shall be consulted prior to all construction activities. As required, Incidental Take permits shall be obtained prior to construction. Mitigation for frac-out is discussed previously in Mitigation Measure BIO-4. If construction activities (i.e., ground clearing and grading, including removal of trees or shrubs, and activities producing excessive noise) are scheduled to occur during the breeding season (February 1 through August 31), the following measures are required to avoid potential adverse effects on nesting California clapper rail and California black rail: • To the extent feasible, perform all construction activities between September 1 and January 31 to avoid rail breeding seasons.	Prior to start of construction activities	Submit documentation of CDFG and USFWS consultation and issuance of Incidental Take permits, as required, to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development, CDFG, and USFWS	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
• If activities cannot be restricted to the nonbreeding season, a qualified biologist shall conduct protocol-level call-count surveys. Rail locations shall be determined and rail territories shall be avoided, or a qualified biologist familiar with clapper rails and black rails shall determine the marsh to be unsuitable rail breeding habitat. • If breeding rails are detected in the marsh, project activities shall not be conducted in contiguous marsh areas within 700 feet from an identified rail calling center to avoid nest destruction, nest abandonment, and harassment of rails. If the intervening distance between the rail calling center and construction areas is across a major slough channel or other substantial physical barrier and is greater than 200 feet, then project activities may proceed within the breeding season.	If construction activities occur between February 1 and August 31	Submit report documenting implementation of measures required to avoid adverse effects on nesting California clapper rail and California black rail to Contra Costa County Department of Conservation and Development.	Project Applicant's qualified biologist	Contra Costa County Department of Conservation and Development	Initials: Date:
• Within 60 days of completion of construction activities, the onsite biological monitor will prepare a report for the USFWS and CDFG documenting any incidents of encounter and the effectiveness and practicality of the mitigations measures. In addition any special-status species sightings during the project will be submitted for insertions into the CNDDB.	Within sixty days of construction completion	Submit a report documenting any incidents of encounter, special-status species sighting, along with the effectiveness and practicality of the mitigations measures, to Contra Costa County Department of Conservation and Development, USFWS, CDFG, and CNDDB.	Project Applicant's qualified biologist	Contra Costa County Department of Conservation and Development, CDFG, and USFWS	Initials: Date:
BIO-5B: Nonbreeding Birds Pre-construction surveys shall be conducted to identify bird species in the area with the potential to be directly impacted by construction activities. A biological monitor shall be on site during construction to monitor construction sites continuously for bird activities beginning in late February and throughout the construction period, prior to site clearing and grading. If it is determined that construction could result in direct mortality, construction disturbance shall be postponed in the immediate area. Worker awareness training shall be conducted to train construction crews in procedures to follow in the event of direct impacts to bird species.	Prior to start of construction activities	Submit results of pre-construction surveys to Contra Costa County Department of Conservation and Development.	Project Applicant's qualified biologist	Contra Costa County Department of Conservation and Development	Initials: Date:
		Submit worker training materials to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
	Beginning in late February, prior to site clearing and grading	Submit daily on-site monitoring of bird activities to Contra Costa County Department of Conservation and Development.	Project Applicant's biological monitor	Contra Costa County Department of Conservation and Development	Initials: Date:
	If construction could result in direct mortality to birds	Submit reports of all required construction postponements to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
BIO-5C: Breeding Raptors The construction corridor and staging areas shall be routinely inspected for nesting activities throughout construction. Any active raptor nests found in or adjacent to disturbance areas shall be fenced with a 300-foot radius buffer around the nest site. This 300-foot buffer may be reduced if a qualified raptor biologist determines that the nesting raptors are acclimated to people and disturbance, and otherwise shall not be adversely affected by construction activities. At a minimum, the nondisturbance buffer shall be a radius of 100 feet around the nest site. If the nest site is on an adjacent property or property that cannot be accessed, the portion of the buffer that occurs within the project corridor shall be fenced. When construction buffers are reduced in size, the raptor biologist shall monitor distress levels of the nesting birds while the birds nest and construction continues. If it is determined that construction could result in failed reproductive success, construction disturbance shall be postponed in the immediate area until young have fledged. In cases where construction activities cannot be postponed (for safety or significant schedule conflicts), the project biologist shall coordinate with CDFG and USFWS, and at a minimum the 300-foot buffer shall be implemented.	Throughout construction activities	Submit results of nesting inspections to Contra Costa County Department of Conservation and Development.	Project Applicant's biological monitor	Contra Costa County Department of Conservation and Development	Initials: Date:
	If active raptor nests are found	Submit documentation of consultation with qualified raptor to Contra Costa County Department of Conservation and Development.	Project Applicant's biological monitor and qualified raptor biologist	Contra Costa County Department of Conservation and Development	Initials: Date:
		Submit daily monitoring reports verifying installation and maintenance of buffer to Contra Costa County Department of Conservation and Development.	Project Applicant's biological monitor	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
	If construction buffers are reduced	Submit results of distress level monitoring to Contra Costa County Department of Conservation and Development, CDFG, and USFWS.	Project Applicant's qualified raptor biologist	Contra Costa County Department of Conservation and Development, CDFG, and USFWS	Initials: Date:
	If construction could result in failed reproductive success	Submit documentation of postponed construction schedule to Contra Costa County Department of Conservation and Development, CDFG, and USFWS.	Project Applicant's qualified raptor biologist	Contra Costa County Department of Conservation and Development, CDFG, and USFWS	Initials: Date:
	If construction could result in failed reproductive success and construction cannot be postponed	Provide documentation of CDFG and USFWS coordination and maintenance of 300-foot buffer to Contra Costa County Department of Conservation and Development.	Project Applicant's Project biologist	Contra Costa County Department of Conservation and Development, CDFG, and USFWS	Initials: Date:
BIO-5D: Resident and Migratory Birds All areas not previously cleared, including all trees to be removed, shall be surveyed prior to initiation of construction-related activities. Any active nests found in or adjacent to disturbance areas shall be flagged and the area immediately around the nest protected from construction equipment. If it is determined that construction could result in indirect mortality, construction disturbance shall be postponed in the immediate area until young have fledged. In situations involving construction activities that cannot be postponed (for safety or significant schedule conflicts), the project biologist shall coordinate with CDFG and USFWS for potential relocation and/or rehabilitation of young birds.	Prior to start of construction activities	Submit results of resident and migratory bird preconstruction surveys to Contra Costa County Department of Conservation and Development.	Project Applicant's qualified biologist	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
	If active nests are discovered	Conduct daily on-site monitoring to confirm that areas with active nests are properly flagged, verify no construction equipment enters flagged areas, and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant's biological monitor	Contra Costa County Department of Conservation and Development	Initials: Date:
	If construction activities could result in indirect mortality	Submit documentation of postponed construction schedule to Contra Costa County Department of Conservation and Development, CDFG, and USFWS.	Project Applicant's qualified raptor biologist	Contra Costa County Department of Conservation and Development, CDFG, and USFWS	Initials: Date:
	If construction could result in indirect mortality and construction cannot be postponed	Provide documentation of CDFG and USFWS coordination and maintenance of 300-foot buffer to Contra Costa County Department of Conservation and Development.	Project Applicant's Project biologist	Contra Costa County Department of Conservation and Development, CDFG, and USFWS	Initials: Date:
BIO-7A: Wetland Restoration The Applicant shall provide compensation for temporary impacts to waters of the U.S., including wetlands, as required by regulatory permits issued by the USACE, RWQCB, and San Francisco Bay Conservation and Development Commission in the event of a frac-out. Temporary impacts shall be mitigated at a 2 to 1 ratio and the mitigation area shall be monitored and managed for 10 years upon	In the event of a frac-out	Provide documentation showing mitigation areas at a 2 to 1 ratio have been established and	Project Applicant	USACE, RWQCB, San Francisco Bay Conservation and Development Commission, and Contra Costa County	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
agreement by the responsible agencies once the mitigation size and location is determined. In addition, possible compensation for impacts to wetlands may be a monetary contribution to restoration efforts and enhancement of McNabney Marsh or a nearby wetland preserve.		submit monitoring reports, or proof that Project Applicant has paid compensation for temporary impacts to waters of the U.S., to USACE, RWQCB, San Francisco Bay Conservation and Development Commission, and Contra Costa County Department of Conservation and Development.		Department of Conservation and Development.	
BIO-7B: Wetland Protection. Final project design shall avoid impacts to wetlands and other waters. Areas that are avoided shall be protected through the implementation of BMPs included in the Storm Water Pollution Prevention Plan (SWPPP). A sample SWPPP is included in Appendix D of this Environmental Impact Report. Such measures include the installation of silt fencing, straw wattles, or other appropriate erosion and sediment control methods or devices as well as spill control measures for oil and hydraulic leaks from construction equipment, including checking and maintaining equipment and vehicles daily to prevent leaks of fuels, lubricants, or other fluids.	Sixty days prior to start of construction activities	Submit final Project SWPPP to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
	Throughout construction activities	Conduct daily on-site monitoring to confirm implementation of mitigation measures included in the SWPPP and submit documentation to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
BIO-8: The Applicant shall obtain tree permits from the Contra Costa County and the City of Martinez and consult with the East Bay Regional Park District prior to initiating construction activities in the area to be cleared for HDD tracking. Trees that must be removed or that could be damaged shall be determined in advance. Fencing shall be installed to protect any trees that can be avoided. BMPs in the sample SWPPP (Appendix D) shall be implemented to minimize impacts from sedimentation, erosion, or spills. Replacement trees shall be planted at site to be	Prior to initiating construction activities in areas to be cleared for HDD tracking	Submit construction plans showing the trees to be removed or protected with fencing, along with plans showing the location of	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development and City of Martinez	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
determined in consultation with the property owner, who shall also be consulted about the species of the replacement trees. The replacement trees shall be monitored for two years to ensure that they establish successfully.		replacement trees to Contra Costa County Department of Conservation and Development, City of Martinez, and EBRPD.			
		Submit EBRPD consultation documentation and copies of tree permits to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development and City of Martinez	Initials: Date:
	Throughout construction activities	Conduct periodic on-site monitoring to confirm appropriate trees are removed or protected and implementation of BMPs from the SWPPP and submit verification documentation to Contra Costa County Department of Conservation and Development and City of Martinez.	Project Applicant, pipeline contractor, and/or qualified biologist	Contra Costa County Department of Conservation and Development and City of Martinez	Initials: Date:
	Following completion of construction	Submit property owner consultation and replacement tree plans to Contra Costa County Department of Conservation and Development, City of Martinez, and EBRPD	Project Applicant and/or qualified biologist	Contra Costa County Department of Conservation and Development and City of Martinez	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix					
Mitigation Measure	**Timing**	**Monitoring or Reporting Action**	**Monitoring or Reporting Entity**	**Enforcement Entity**	**Check-off**
	Following replacement tree plantings	Submit annual monitoring reports of replacement trees to Contra Costa County Department of Conservation and Development and City of Martinez.	Project Applicant's qualified biologist	Contra Costa County Department of Conservation and Development and City of Martinez	Initials: Date:
Cultural Resources					
CR-1: If previously unknown historic resources are discovered during construction activities, all work within 100 feet of these materials shall be stopped until a professional archaeologist certified by the Registry of Professional Archaeologists has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as determined necessary, and ensure that these measures are carried out.	Throughout construction activities upon the discovery of historic resources	Submit report documenting methods, results, and any appropriate mitigation(s) to Contra Costa County Department of Conservation and Development. Conduct on-site monitoring to confirm that mitigations identified in the report are properly implemented and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant's professional archaeologist	Contra Costa County Department of Conservation and Development	Initials: Date:
CR-2: If previously unknown archaeological resources are discovered during construction activities, all work within 100 feet of these materials shall be stopped until a professional archaeologist certified by the Registry of Professional Archaeologists has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as determined necessary, and ensure that these measures are carried out.	Throughout construction activities upon the discovery of archaeological resources	Submit report documenting methods, results, and any appropriate mitigation(s) to Contra Costa County Department of	Project Applicant's professional archaeologist	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix					
Mitigation Measure	**Timing**	**Monitoring or Reporting Action**	**Monitoring or Reporting Entity**	**Enforcement Entity**	**Check-off**
		Conservation and Development. Conduct on-site monitoring to confirm that mitigations identified in the report are properly implemented and submit verification documentation to Contra Costa County Department of Conservation and Development.			
CR-3A: The following language shall be incorporated in the Project's condition(s) of approval: If a paleontological resource (fossilized invertebrate, vertebrate, plant, or microfossil) is discovered during excavation, the contractor(s) shall notify a qualified paleontologist, who shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. Excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology current standards. The paleontologist shall notify the contractor to determine the procedures to be followed before construction is allowed to resume at the location of the find. If avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the Project effects.	Prior to start of construction activities	Include language in the Project's conditions of approval.	Contra Costa County Department of Conservation and Development	Contra Costa County Department of Conservation and Development	Initials: Date:
CR-3B: The following language shall be incorporated in the Project's condition(s) of approval: If a unique geologic feature (unusual bedrock exposures, isolated or unique outcrops of rare bedrock units, or unique tectonic features) is discovered during excavation, the contractor(s) shall notify a qualified geologist, who shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. Excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified or professional geologist, in accordance with the California Board for Geologists and Geophysicists current standards. The geologist shall notify the contractor to determine the procedures to be followed before construction is allowed to resume at the location of the find. If avoidance is not feasible, the geologist shall	Prior to start of construction activities	Include language in the Project's conditions of approval.	Contra Costa County Department of Conservation and Development	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix					
Mitigation Measure	**Timing**	**Monitoring or Reporting Action**	**Monitoring or Reporting Entity**	**Enforcement Entity**	**Check-off**
recommended appropriate measures to protect the resource.					
CR-4: In the event that Native American human remains or funerary objects are discovered, California Health and Safety Code Section 7050.5(b) shall be implemented. The code states: "In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code." The County Coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the Native American Heritage Commission within 24 hours. The commission has various powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned Most Likely Descendant. PRC Sections 5097.98 and 5097.99 also call for "protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction." A combination of preconstruction worker training and intermittent construction monitoring by a qualified archaeologist shall serve to achieve compliance with this requirement for protection of human remains. Worker training typically instructs workers as to the potential for discovery of cultural or human remains, and both the need for proper and timely reporting of such finds, and the consequences of failure thereof. Once the find has been identified, the archaeologist shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be significant.	Prior to start of construction activities	Submit preconstruction worker training materials to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
	Throughout construction activities	Conduct periodic on-site monitoring and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant's qualified archaeologist	Contra Costa County Department of Conservation and Development	Initials: Date:
	Throughout construction activities upon discovery of Native American human remains	Submit results of County Coroner determination and Coroner's communication with Native American Heritage Commission to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
Geology Soils and Seismicity					
GS-1A: The Applicant (Air Products) shall conduct a rupture hazard evaluation following CGS' Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California, published in 2008. It is anticipated that the approach of the investigations would include literature review, geologic interpretation of aerial photographs and on-site field visits, age dating of offset materials, and subsurface exploration (geophysical surveying, continuous coring to bedrock, and/or trenching across the fault zone). The investigation shall	Prior to start of construction activities	Submit a rupture hazard evaluation, including recommendations of special design features to allow the pipeline to	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
include recommendations of special design features to allow the pipeline to accommodate tectonic creep and minor fault offset without rupture.		accommodate tectonic creep and minor fault offset without rupture, to Contra Costa County Department of Conservation and Development.			
GS-1B: Mitigation for GS-1B would be similar to mitigation for Impact GS-1A. Immediately following a seismic event in excess of M5.0 on the Concord Fault (as reported by the Northern California Earthquake Data Center), a qualified Professional Engineer shall inspect the pipeline crossing of the Concord Fault Zone. A "gauge pig" or geometric internal inspection tool shall inspect the pipeline. This type of inspection yields information about any type of deformation (buckling, etc.) of the pipe, which is especially important for areas where humans may not be able to access, such as in a horizontal directional drilling (HDD) area. Additionally, the Applicant shall continuously monitor the pipeline for venting (in this case, from pipe breakage due to shear stress) using the ATMOS® real time leak detection system or equivalent. A qualified Professional Engineer shall review this information to determine if significant damage to the pipeline has occurred. The engineer shall prepare a report that describes the results of the inspection and provides recommendation(s) for necessary corrective action to Contra Costa County Department of Public Works. Upon the County's approval, all recommendations shall be implemented within one year. Additional time for remedial actions shall be granted if the County deems appropriate. Implementation of Mitigation Measures GS-1A and GS-1B would not reduce the likelihood of a large magnitude earthquake occurring on the Concord Fault. Engineering of the pipeline consistent with American Society of Civil Engineers guidelines reduces the potential of a large-magnitude seismic event rupturing the existing pipeline. Inspection of the pipeline following implementation of Mitigation Measure GS-1B would increase the likelihood of potential post-earthquake damage being detected and repaired, thus reducing the exposure time to risks associated with damage to the pipeline should damage occur.	Immediately following a seismic event in excess of M5.0 on the Concord Fault	Submit results of pipeline crossing at the Concord Fault Zone inspection to Contra Costa County Department of Public Works.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Public Works	Initials: Date:
		Submit reports documenting methods used and results of venting monitoring to Contra Costa County Department of Public Works.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Public Works	Initials: Date:
		Submit a report that describes the results of the inspection and provides recommendation(s) for necessary corrective action to Contra Costa County Department of Public Works.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Public Works	Initials: Date:
		Conduct periodic on-site monitoring to confirm implementation of recommendations from Professional	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Public Works	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
		Engineer's report and submit verification documentation to Contra Costa County Department of Public Works.			
GS-2A: A licensed professional engineer shall design all structures constructed as part of the Project in conformance with current engineering practice to ensure that the pipeline and all its appurtenances would resist the effects of earthquake motions. The design shall specifically address the potential secondary effects of seismic shaking, including liquefaction and related phenomenon (e.g., lateral spreading and differential settlement), in areas of rated "moderate" and "high" liquefaction susceptibility.	Prior to start of construction activities	Submit detailed construction plans that address all identified geologic concerns for all Project structures to Contra Costa County Department of Conservation and Development.	Project Applicant's licensed Professional Engineer	Contra Costa County Department of Conservation and Development	Initials: Date:
GS-2B: The operators of the pipelines shall monitor seismic shaking conditions in areas of the site most vulnerable to seismic shaking (i.e., areas underlain by unconsolidated sediments). The monitoring shall rely on available instrumentation (i.e., accelerographs) monitored by the California Integrated Seismic Network, or accelerographs installed for the Project or available at local refineries. When monitoring indicates that seismic shaking in excess of 0.1 gravity has occurred in the Project area, a qualified Professional Engineer shall inspect the pipeline alignments to determine if adverse conditions have occurred. These conditions could include pipeline damage to aboveground structures and, particularly, liquefaction in the extensive areas underlain by Bay Mud. The engineer shall prepare a report for the Contra Costa County Department of Public Works that describes the results of the inspection and provides recommendations for any necessary corrective action. Upon the County's approval, all recommendations shall be implemented within one year. Additional time for remedial actions shall be granted if the County deems appropriate.	During pipeline operations	Submit monitoring reports to Project Applicant and Contra Costa County.	Pipeline operator	Contra Costa County	Initials: Date:
	When monitoring indicates seismic shaking in excess of 0.1 gravity	Submit report identifying any adverse conditions and corrective actions to Contra Costa County Department of Public Works.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Public Works	Initials: Date:
		Conduct periodic on-site monitoring to confirm implementation of recommendations from Professional Engineers report and submit verification documentation to Contra Costa County Department of Public Works.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Public Works	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
GS-3: In addition to incorporating potential settlement into the design of the pipelines and associated facilities, the operators of the pipelines shall monitor seismic shaking conditions in areas of the site most vulnerable to seismic shaking (i.e., areas underlain by unconsolidated sediments). The monitoring relies on available instrumentation (i.e., accelerographs) monitored by the California Integrated Seismic Network or accelerographs installed for the Project. When monitoring indicates (as interpreted by a qualified Professional Engineer) that seismic shaking in excess of 0.3 gravity has occurred in the Project area, a qualified Professional Engineer shall inspect the pipeline alignments to determine if adverse conditions, including liquefaction or seismically induced landslides have occurred. The engineer shall prepare a report for the Contra Costa County Department of Public Works that describes the results of the inspection and provides recommendations for any necessary corrective action. Upon the County's approval, all recommendations shall be implemented within one year. Additional time for remedial actions shall be granted if the County deems appropriate.	During pipeline operations	Submit monitoring reports to Project Applicant and Contra Costa County Department of Public Works.	Pipeline operator	Contra Costa County Department of Public Works	Initials: Date:
	When monitoring indicates seismic shaking in excess of 0.3 gravity	Submit report identifying any adverse conditions and corrective actions to Contra Costa County Department of Public Works.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Public Works	Initials: Date:
		Conduct periodic on-site monitoring to confirm implementation of recommendations from Professional Engineers report and submit verification documentation to Contra Costa County Department of Public Works.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Public Works	Initials: Date:
GS-5A: Trench spoils generated by the HDD process shall be either used for backfill where appropriate or tested for contaminants and hauled off site to an appropriate disposal facility.	During HDD process	Submit report documenting test results of trench spoils and disposal locations to Contra Costa County Department of Conservation and Development.	Project Applicant's pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
GS-5B: The Project will be required by county ordinance to establish erosion control measures for grading activities. The requirements of the grading ordinance include the preparation of an Erosion Control Plan. Similarly, the Project shall develop, implement, and meet the requirements of erosion and	Sixty days prior to start of construction activities	Submit SWPPP and Erosion Control Plan to Contra Costa County Department	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
sediment control plans for the Stormwater Pollution Prevention Plan, as discussed in Section 4.8, Hydrology and Water Quality, Mitigation Measure HWQ-1A. The Stormwater Pollution Prevention Plan and the Erosion Control Plan shall be submitted to Contra Costa County for approval 60 days before the start of construction.		of Conservation and Development.			
	Throughout construction activities	Conduct periodic on-site monitoring to ensure implementation of SWPPP and Erosion Control Plan and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
GS-7: As required by the California Uniform Building Code, a geotechnical design analysis of the soils and proposed foundation shall be prepared and submitted for approval to Contra Costa County 60 days prior to project construction. All weight-bearing structures overlying plastic soils shall be designed in accordance with standard engineering practice and in concurrence with the geotechnical design analysis to mitigate the effects of expansion and shrinkage of the underlying soils on the proposed pipelines and associated infrastructure.	Sixty days prior to start of construction activities	Submit geotechnical design analysis of the soils and proposed foundation to Contra Costa County Department of Conservation and Development.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Conservation and Development	Initials: Date:
Hazards and Hazardous Materials					
HAZ-2A: Sixty days prior to start of Project construction, Air Products shall provide Project-specific Operating, Maintenance, and Emergency Procedures to Contra Costa County and to the City of Martinez for approval. Further, to address concerns over potential blast impacts to the surrounding levees, the proposed pipelines shall be designed, constructed, operated and maintained in excess of existing code requirements. Automatic shutoff valves shall be installed on either end of the pipeline, so that flows could be controlled should a leak, fire, or explosion occur. In the event of a fire or explosion, the flow of fuel gas and hydrogen would be immediately shut down, thus extinguishing the ignition source. Adjacent roads, railroad bridges, and supporting trestle bridge would be shut down, inspected, and repaired if necessary. This inspection could occur for the levees in the vicinity as well. The presence of Excess Flow Valves (EFVs) that automatically shut down the flow of gas through the pipeline in the event of a leak would mitigate the potential for an explosion and, thus, mitigate	Sixty days prior to start of construction activities	Submit Project-specific Operating, Maintenance, and Emergency Procedures to Contra Costa County Department of Conservation and Development and to the City of Martinez for approval.	Project Applicant	Contra Costa County Department of Conservation and Development and City of Martinez	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
the impact of flooding from damage to levees in the event of an explosion (see Section 4.7.6.2.6 for complete EFV description).		Submit final pipeline designs and specifications showing compliance in excess of existing code requirements to Contra Costa County Department of Conservation and Development and City of Martinez.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Conservation and Development and City of Martinez	Initials: Date:
	In the event of an explosion from the pipeline	Submit report detailing shut down of valves and adjacent roads, railroads, and bridges, results of inspections, and necessary repairs to Contra Costa County Department of Conservation and Development and City of Martinez.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Conservation and Development and City of Martinez	Initials: Date:
HAZ-2C: Sixty days prior to start of Project construction, Air Products shall provide a plan that includes procedures for identifying and preventing accidental damage to third-party pipelines. The plan must identify BMPs from Common Ground Alliance Best Management Practices to be included in the plan and also must provide a Project-specific emergency response plan that includes procedures for responding to a release from accidental damage to a third-party pipeline	Sixty days prior to start of construction activities	Submit a plan that includes procedures for identifying and preventing accidental damage to third-party pipelines, identifies BMPs from Common Ground Alliance Best Management Practices, and includes a Project-specific emergency response plan to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
HAZ-2D: Air Products shall incorporate into contract specifications language to ensure that all on-site health and safety guidelines and regulations involving hazardous materials handling are followed during construction. Air Products shall prepare a Spill Prevention and Response Plan that will include the hazardous materials (including petroleum products) proposed for use; a description of the measures for preventing spills, monitoring hazardous materials, and providing immediate response to spills. Spill response measures shall address notification procedures for Air Products, safety issues regarding construction personnel and public health, and methods for spill response and cleanup.	Sixty days prior to start of construction activities	Submit contract specification language to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
		Submit a Spill Prevention and Response Plan that includes all required components to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
HAZ-2E: Sixty days prior to start of Project construction, Air Products shall submit a Contaminated Soils and Water Plan with detailed procedures pertaining to the management of potentially contaminated materials observed during construction. The plan needs to include a description of testing requirements, significance criteria, and remediation methods to be applied in the event that contaminated soil or other hazardous wastes are encountered during pipeline construction in these areas. Implementation of this plan would reduce the impact of exposure to contaminated soils to a less-than-significant level. This procedure shall include requiring the contractors to submit health and safety plans, training records, emergency procedures, contact numbers, permits, and certifications. Generally, the materials would be identified visually or by the detection of an odor. The Contaminated Soils and Water Plan shall also include the following general contingency measures and procedures that would be implemented. Identification of Contaminated Soils or Water. The work crew would suspend operations and notify the on-site Environmental Coordinator (EC). The EC would assess the hazard and obtain samples. The samples may include both soil and water samples. If the material is volatile or semivolatile, air monitoring may be needed to assess worker safety. Based on the assessment, and in consultation with the Site Safety Officer, the work may be suspended until further characterized, remedial action is implemented, or work may be allowed to continue with the appropriate Personal Protective Equipment (PPE). Remedial Action. If remedial action is necessary, a remedial plan would be drawn up, and the crew would begin to implement the remedial action. If the EC, or the	Sixty days prior to start of construction activities	Submit a Contaminated Soils and Water Plan that includes all required components and contingency measures to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix					
Mitigation Measure	**Timing**	**Monitoring or Reporting Action**	**Monitoring or Reporting Entity**	**Enforcement Entity**	**Check-off**
trained crew, deem that a quick response is necessary to contain the material, then the plan may be given orally, and documented at a later time. Training and Site Security. The work crew would all be HAZWOPER trained (OSHA 40 hour and yearly Recertification per 8 CCR 5192/29 CFR 1910.120). The area affected by the material would be demarcated and secured. No persons without the proper training, medical clearance, and required PPE would be allowed into the area. Notification Procedures. The EC would document the location, the materials encountered, estimated quantity, and hazard. If the amount exceeds the reportable quantity for that material, the EC would notify the required county and state agencies. Storage, Removal, and Disposal Procedures. Based on the type, concentration, and quantity of material, the EC would have the material contained and covered on site and sampled for disposal. The material would be labeled and manifested (as hazardous, if necessary) and shipped off site for disposal at an appropriate disposal facility. Asbestos Procedures. If asbestos-containing transite pipe is encountered, the pipe would be removed by Hazmat-trained employees from the path of the trench and stockpiled to the side. Containment and removal may be carried out simultaneously with the continuation of the trenching. Hydrocarbon Procedures. If hydrocarbon-contaminated soils are encountered, they too can be stockpiled, sampled, labeled, and removed. If groundwater is encountered with identifiable hydrocarbons, samples would be obtained, and the area of the contamination would be demarcated, and work would continue outside that zone, until remedial measures make it safe to proceed in that area. Confined Space Entry Procedures. In cases where volatiles may be encountered, air monitoring would be conducted. If it is in a trench or excavation, that area would be considered a permit-required confined space, and no-one would be allowed to enter, until all permit-required confined space procedures are carried out, or the atmosphere has been shown to be safe, and the space is reclassified as nonpermit (8 CCR 5157/29 CFR 1910.146). Unknowns. In cases where the material is unknown, or suspected to contain more than what is obvious, the area would be shut down until fully assessed. Work may continue in areas that are not affected					
HAZ-4A: In the event that known or suspected hazardous or contaminated materials are encountered during construction, the Applicant shall implement the following procedures:	In the event that known or suspected hazardous or contaminated materials are	Submit report documenting assessment of the hazard, including	County-approved Environmental Coordinator	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
Identification of contaminated soils or water • The work crew shall suspend operations and notify the on-site County-approved Environmental Coordinator. The Environmental Coordinator shall assess the hazard and obtain samples. The samples may include both soil and water samples. If the material is volatile or semivolatile, air monitoring may be needed to assess worker safety. Based on the assessment, and in consultation with the Site Safety Officer, the work may be suspended until further characterized, remedial action is implemented, or work may be allowed to continue with the appropriate personal protective equipment. • If remedial action is necessary, a remedial plan shall be drawn up, and the crew shall begin to implement the remedial action. If the Environmental Coordinator or the trained crew deems that a quick response is necessary to contain the material, then the plan may be given verbally and documented at a later time. • Everyone on the work crew shall be trained pursuant to the Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) OSHA 40-hour and yearly recertification, 8 CCR 5192 / 29 CFR 1910.120. The area affected by the material shall be demarcated and secured. No persons without the proper training, medical clearance, and required personal protective equipment shall be allowed into the area. • The Environmental Coordinator shall document the location, the materials encountered, estimated quantity, and hazard. If the amount exceeds the Reportable Quantity for that material, the Environmental Coordinator shall notify the required county and state agencies. • Based on the type, concentration, and quantity of material, the Environmental Coordinator shall have the material contained and covered on site and sampled for disposal. The material shall be labeled and manifested (as hazardous, if necessary) and shipped off site for disposal at an appropriate disposal facility. • If asbestos-containing transite pipe is encountered, the pipe shall be removed by hazardous-material-trained employees from the path of the trench and stockpiled to the side. Containment and removal may be carried out simultaneously with the continuation of the trenching. • If hydrocarbon-contaminated soils are encountered, they shall be stockpiled, sampled, labeled, and removed. If groundwater is encountered with identifiable hydrocarbons, samples shall be obtained, and the area of the contamination shall be demarcated. Work shall stop within that zone until remedial measures make it safe to proceed in that area.	encountered during construction	location, the materials encountered and estimated quantity to Contra Costa County Department of Conservation and Development and Site Safety Officer, along with required county and state agencies, if necessary.			
	Prior to the start of construction	Submit documentation of worker HAZWOPER 40-hour certification to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
	If remedial action is necessary	Submit a remedial plan to Contra Costa County Department of Conservation and Development.	County-approved Environmental Coordinator	Contra Costa County Department of Conservation and Development	Initials: Date:
		Conduct periodic on-site monitoring to confirm compliance with remedial plan is properly implemented and submit verification documentation to Contra Costa County Department of Conservation and Development.	County-approved Environmental Coordinator	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix					
Mitigation Measure	**Timing**	**Monitoring or Reporting Action**	**Monitoring or Reporting Entity**	**Enforcement Entity**	**Check-off**
• In both cases above, and others in which volatiles may be encountered, air monitoring shall be conducted. If it is in a trench or excavation, that area shall be considered a permit-required confined space, and no one shall be allowed to enter until all permit required confined space procedures are carried out or the atmosphere has been shown to be safe, and the space is reclassified as nonpermit (per 8 CCR 5157/29 CFR 1910.146). • In cases where the material is unknown, or suspected to contain more than what is obvious, the area shall be shut down until fully assessed. Work may continue in areas that are not affected.					
HAZ-4B: Sixty days prior to start of Project construction, the Applicant shall submit a contaminated soils and water plan to Contra Costa County Department of Conservation and Development for review and approval. The plan shall include detailed procedures pertaining to the management of potentially contaminated materials observed during construction. The plan shall include each of the Recognized Environmental Conditions listed in the Phase I Environmental Site Assessment and a plan for addressing each Recognized Environmental Condition, including a description of testing requirements, significance criteria, and remediation methods to be applied in the event that contaminated soil or other hazardous wastes are encountered during pipeline construction in these areas. This procedure would include requiring the contractors to submit health and safety plans, training records, emergency procedures, contact numbers, permits, and certifications.	Sixty days prior to start of construction activities	Submit a contaminated soils and water plan that contains all required components, procedures, and Recognized Environmental Conditions to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development.	Initials: Date:
HAZ-8: Sixty days prior to start of Project construction, Air Products shall submit a Fire Protection Plan to Contra Costa County. The plan should include procedures to prevent fires during Project construction and operation.	Sixty days prior to start of construction activities	Submit a Fire Protection Plan that includes all required procedures to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
Hydrology and Water Quality					
HWQ-1A: Surface water and stormwater contamination shall be minimized through the implementation of a Project-specific SWPPP. A SWPPP is required as a permit requirement of the RWQCB General Construction NPDES Permit (SWRCB 2004). Compliance with the General NPDES Permit requirements would ensure that stormwater discharge meets Basin Plan water quality objectives and that the existing beneficial uses and water quality at the discharge points are	Sixty days prior to start of construction activities	Submit SWPPP to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
		Submit the Notice of	Project Applicant	SWRCB and Contra	Initials:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
maintained and protected. A sample SWPPP, prepared by Air Products for a similar project, is provided in Appendix B. In the Project-specific SWPPP, the Contractor(s) would be required to: • Prevent silt, eroded materials, construction debris, concrete or washings thereof, or hazardous substances from being introduced into any watercourse, stream, or storm drain system. • Prohibit the discharge of water used in hydrostatic testing until it has been tested. Once sampled, the water shall be discharged in accordance with Basin Plan objectives. • Ensure that water does not cause erosion of soil. • Prohibit the stockpiling of soil, storage of hazardous materials, and stockpiling of construction materials in flood zones during the rainy season, typically between October 15 and April 15. • Ensure that the discharge of soil or other material does not have an adverse effect on receiving waters or cause or contribute to a violation of water quality standards. The Contractor(s) shall be required to comply with NPDES stormwater permitting requirements, (i.e., those provided in the SWRCB Construction General Permit 99 08 DWQ) (SWRCB 2004). In accordance with NPDES stormwater permitting requirements, the Contractor(s) would submit the required Notice of Intent, comply with the Project SWPPP by implementing site-specific BMPs to control and eliminate discharges of construction-related sediments and pollutants in stormwater runoff, into storm drains and any receiving waters. The control measures would also need to be consistent with the Contra Costa Clean Water Program. Air Products would incorporate into construction contract specifications the requirement for measures implemented at the staging areas to contain surface runoff so that contaminants such as oil, grease, and fuel products do not drain toward receiving waters. For example, if heavy-duty construction equipment is stored overnight at the construction staging areas, drip pans would be placed beneath the machinery engine block and hydraulic systems to prevent any leakage from entering runoff or receiving waters reducing the potential impact to less than significant. Also, during trench operations, stockpiles would be surrounded by hay bales, wattles, or other appropriate BMPs to minimize erosion and potential sedimentation of nearby waterways by stormwater runoff. The SWPPP shall include specific protection measures for temporary onsite storage of diesel fuels, chemicals used during drilling, cathode protection testing, or other		Intent to the SWRCB and Contra Costa County Department of Conservation and Development.		Costa County Department of Conservation and Development	Date:
		Submit construction contract specifications that require measures implemented at the staging areas to contain surface runoff to Contra Costa County Department of Conservation and Development	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
	Throughout construction activities	Conduct periodic on-site monitoring to confirm implementation of BMPs contained in the SWPPP and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
Project activities. The requirements of the General Permit are intended to be implemented on a year-round basis, not just during the part of the year when probability is high of a precipitation event that results in stormwater runoff. The permit should be implemented at the appropriate level and in a proactive manner during all seasons while construction is ongoing. In conclusion, by performing the Project during the dry season, typically defined as April 15 to October 15, and by developing and implementing a Project-specific SWPPP, impacts may be mitigated to less-than-significant levels for construction activities that could result in degradation of surface water quality in local waterways reducing quality of stormwater runoff.					
HWQ-1B: If Air Products decides to discharge to land or surface waters project-generated waters such as hydrotest water, drilling fluids, groundwater from dewatering, and water generated from the cleaning of equipment and vehicles, they shall conform with the requirements of the Statewide General WDRs for Discharges to Land with A Low Threat to Water Quality (Low Threat Discharge WDRs). The San Francisco Bay RWQCB regulates discharge of Project-generated waters that are a low threat to water quality through the Low Threat Discharge WDRs. For Air Products to seek coverage under these Low Threat Discharge WDRs, they are required to file with the San Francisco Bay RWQCB the following information (SWRCB 2003): • A Notice of Intent to comply with the terms and conditions of the General WDRs or submit a Report of Waste Discharge • The applicable fees • A Project map • Evidence of CEQA compliance • A DMP Upon review by Regional Board staff, a determination shall be made as to whether or not coverage under these General WDRs is appropriate. Air Products shall be notified by a letter from the Regional Board Executive Officer when coverage under these General WDRs has begun. The DMP shall include a description of discharge location, discharge characteristics, primary pollutants, receiving water, treatment systems, spill prevention plans, and other measures necessary to comply with San Francisco Bay RWQCB discharge limits and other applicable regulations. The plan could be used to cover discharge of fluids collected from dewatering, hydrotesting, and/or horizontal drilling. A Project sampling and analysis program will be prepared as part of the DMP and would be implemented by Air Products along with record	If Project Applicant decides to discharge to land or surface waters	Submit the Notice of Intent, applicable fees, Project map, evidence of CEQA compliance, and DMP to the San Francisco Bay RWQCB and Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development and San Francisco Bay RWQCB	Initials: Date:
		Submit a copy of Regional Board staff determination to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
		Submit reports documenting sampling results, exceedances of discharge limitations, and any corrective actions taken to the San Francisco Bay RWQCB and Contra Costa County	Project Applicant	Contra Costa County Department of Conservation and Development and San Francisco Bay RWQCB	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
keeping and quarterly reporting requirements during dewatering activities. Specifically, the DMP must contain the following: • All pollutants believed to be present in the discharge • Approximate concentration of pollutants in the discharge • Monitoring locations • Monitoring frequencies • Report schedule (dates that reports will be submitted to the San Francisco Bay RWQCB) Material Safety Data Sheets and additional laboratory analysis may be required by the Regional Board to evaluate the discharge and approve the DMP. The DMP will be subject to Regional Board Executive Officer approval. As an option to obtaining the General WDR Permit detailed above, Air Products could explore the feasibility to collect all waters generated during construction to eliminate discharge to surface waters (MRS 2008). In this scenario, Air Products would investigate options to either reuse the water collected from trench dewatering during the construction activities or haul the collected water to an approved discharge facility. Project-generated water shall not be discharged until it has been tested. Once sampled, the water would be discharged in accordance with the DMP. Typically, the construction specifications would require that the Contractor(s) verifies that the discharge has a nondetectable total chlorine residual and a pH greater than 6.5 and less than 8.5 and that the discharge meets all other water quality standards presented in the Basin Plan. The water would be dechlorinated and/or treated as necessary and discharged to the storm drain or creek in accordance with San Francisco Bay RWQCB requirements, with settling and/or filtration to remove the solids. The Contractor(s) shall be required to monitor the discharge for flow rate, total suspended solids, pH, total chlorine residual, various metals, trihalomethanes, and toxicity. The receiving water would also need to be monitored for hardness, total solids, pH, salinity, metals, and trihalomethanes. The results of the monitoring, any exceedances of discharge limitations, and any corrective actions taken would be reported to the San Francisco Bay RWQCB in the required self-monitoring report. In the event of a discharge containing detectable levels of residual chlorine, Air Products or Contractor(s) would be required to notify the San Francisco Bay RWQCB by telephone within 24 hours and in writing within five days of becoming aware of the discharge. Relative to solids and semisolids generated during the HDD operation, Air Products proposes to landfarm or landfill materials generated.		Department of Conservation and Development.			

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
HWQ-3: As discussed above under Mitigation Measure HWQ-1, a Project-specific SWPPP shall be developed to define BMPs to minimize or eliminate construction impacts to surface waters. The SWPPP shall define runoff and water management control measures that would minimize erosion or siltation on- or off-site. At the completion of pipeline installation, all disturbed areas without Project improvements shall be restored to pre-construction conditions including topography, hydrology, top soil, and vegetation. All construction debris and surplus materials shall be removed. Pre-construction conditions as well as land use plans, landowner requirements, and the construction SWPPP shall determine further restoration procedures (e.g., erosion control) for the right-of-way. Salvaged top soil from the clearing and trenching operations shall be placed back on the right-of-way to assist in any revegetation. Restoration of disturbed areas at project completion would result in no alteration of long-term drainage patterns that could result in substantial erosion or siltation on- or off-site.	Sixty days prior to start of construction activities	Submit a Project-specific SWPPP to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
	At completion of pipeline installation	Submit a restoration plan for returning topography, hydrology, top soil, and vegetation to preconstruction conditions to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
	During and following completion of restoration plan	Conduct periodic on-site monitoring to confirm compliance with approved restoration plan and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
HWQ-6: A site-specific contingency plan for inadvertent frac-out shall be prepared by the pipeline contractor. The plan shall address how potential impacts from HDD operations would be kept to a minimum. The minimum required components of the contingency plan are to: stop drilling when return of drilling mud slows or ceases or a spill (frac-out) is observed by the driller or biological monitor, contain the spill (by measures such as silt fencing/hay bales), pump drilling mud from the containment area to a drill rig or frac truck, and refrain from drilling until containment is completed. During drilling fluid returns and levels shall be visually monitored and real-time downhole pressure shall be monitored such that a potential frac-out is detected immediately. The contingency plan would also	Sixty days prior to start of construction activities	Submit a site-specific contingency plan for inadvertent frac-out that includes all required components to Contra Costa County Department of Conservation and Development.	Project Applicant's pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
include corrective actions during drilling as well as spill contingency procedures, comprised of notification, equipment, supplies, and staffing requirements. Biological monitors, hired by the Applicant, will be required to be present during HDD operations to observe potential frac-out conditions and resulting impacts, along the drill route. Supplies to mitigate a frac-out will need to be available on site including Material Safety Data Sheets for all mud and additives, containment materials such as sand bags and silt fencing, pumps and hoses for remediation, and ready availability of a vacuum truck(s), geotextile booms, and storage tanks. Mitigation Measure BIO-7B and Mitigation Measure BIO-3 provides more specific detail of the prevention measures utilized to avoid drilling mud contamination to surface waters and wetlands and specifically to the salt marsh harvest mouse, respectively.	During HDD operations	Submit reports documenting monitoring methods and findings and verify MSDS and other supplies need to mitigate a frac-out are available onsite to Contra Costa County Department of Conservation and Development.	Project Applicant's biological monitors	Contra Costa County Department of Conservation and Development	Initials: Date:
HWQ-9A: The Project's aboveground features, including EFVs and block valves and corrosion-testing equipment, shall be placed at an elevation such that long-term operation and maintenance would not be affected by a long-term increase in sea level or alternately, contingency plans shall be developed for future modifications of facilities if necessary. The Project's Operations and Maintenance Plan shall include provisions to minimize the risk of loss due to a long-term rise in sea level in the Project vicinity. Provisions for maintenance of access roads, modification of aboveground facilities, and/or other contingency plans shall be developed to address this concern.	Sixty days prior to start of construction activities	Submit an Operations and Maintenance Plan that includes required provisions to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
HWQ-9B: The proposed pipelines shall be designed, constructed, operated and maintained in excess of existing code requirements. Automatic shutoff valves shall be installed on either end of the pipeline, so that flows could be controlled should a leak, fire, or explosion occur. As an explosion from the pipeline would require a confined area for gas to become trapped, the likelihood of explosion is very small; a more likely scenario would be ignition and burning of gas into the atmosphere. In the event of a fire or explosion, the flow of hydrogen would be immediately shut down, thus extinguishing the ignition source. Adjacent roads, railroad bridges, and supporting trestle bridge would be shut down, inspected, and repaired if necessary. This inspection could occur for the levees in the vicinity as well. The presence of EFVs that automatically shut down the flow of gas through the pipeline in the event of a leak would mitigate the potential for an explosion and, thus, mitigate the impact of flooding from damage to levees in the event of an explosion (see Hazards Section 4.7.6.2.6, Operation, Maintenance, and Safety Controls for a complete EFV description).	Prior to start of construction activities	Submit final pipeline designs and construction plans that exceed existing code requirements to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
	Throughout construction activities	Conduct periodic on-site inspections to confirm that proposed pipelines are constructed in accordance with approved final designs and	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix					
Mitigation Measure	**Timing**	**Monitoring or Reporting Action**	**Monitoring or Reporting Entity**	**Enforcement Entity**	**Check-off**
		construction plans and submit verification documentation to Contra Costa County Department of Conservation and Development.			
	Following completion of construction activities	Conduct periodic site inspections following construction to confirm operation and maintenance activities exceed code requirements and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
HWQ-9C: The position of proposed hydrogen transmission pipeline on the Tesoro pipe bridge shall be relocated from the lower (approximate elevation 14.0 feet NAVD) to the upper (21.0 feet NAVD) rack of the bridge structure. The increased elevation of the pipeline would reduce the potential for inundation of the aboveground segment of the pipe alignment during extreme floods.	Prior to start of construction activities	Submit final project design plans and specifications for portion of the hydrogen pipeline on the Tesoro pipe bridge, which also includes water management and restoration provisions to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
HWQ-9D: The Applicant shall be responsible to monitor flow levels within Pacheco Creek at the location of the Tesoro pipe bridge to provide warning of high flow conditions which may result in inundation or damage to the bridge and proposed pipeline. When stream flow levels rise above elevation 11.4 feet NAVD (approximate elevation of top of bridge bent caps), automatic shutoff of product flow shall be activated. Following any flood flow event which results in inundation of the bridge (i.e., rising above elevation 11.4 feet NAVD), the bridge shall be inspected by a qualified Professional Engineer to determine if significant damage to the bridge or pipeline has occurred. If significant damage is identified, a corrective action plan shall be prepared and submitted to the Contra Costa County Department of Conservation and Development for review and approval. Any necessary repairs shall be implemented prior to the beginning of the next rainy season (November 1).	Throughout and following construction period	Submit annual reports documenting monitoring methods, locations, and results to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development.	Initials: Date:
	In the event that stream flow levels rise above elevation 11.4 feet NAVD	Submit report documenting the findings of bridge inspection to Contra Costa County Department of Conservation and Development.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Conservation and Development	Initials: Date:
	If significant damage is identified	Submit a corrective action plan to Contra Costa County Department of Conservation and Development.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Conservation and Development	Initials: Date:
		Submit monitoring report verifying that necessary repairs have been implemented to Contra Costa County Department of Conservation and Development.	Project Applicant's qualified Professional Engineer	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix					
Mitigation Measure	**Timing**	**Monitoring or Reporting Action**	**Monitoring or Reporting Entity**	**Enforcement Entity**	**Check-off**
Noise					
NOI-1A: The Applicant (Air Products) shall provide a construction schedule to the Mountain View Sanitary District, the City of Martinez, and the EBRPD as the property owners at least seven days in advance of construction.	At least seven days prior to start of construction activities	Submit a final construction schedule to the Mountain View Sanitary District, City of Martinez, EBRPD, and Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Mountain View Sanitary District, the City of Martinez, the EBRPD, and Contra Costa County Department of Conservation and Development	Initials: Date:
NOI-1B: The Applicant shall incorporate into contract specifications a requirement that daytime noise levels shall not exceed 70 dB Leq due to construction activities at Waterbird Regional Preserve, and that noise levels at the construction site are consistent with local ordinances. Measures that shall be implemented to reduce noise levels to meet this criterion include the following: Truck operations (e.g., haul trucks) shall be limited to daytime hours, as described in Mitigation Measure NOI-1C.	At least seven days prior to start of construction activities	Submit contract specifications that include daytime noise level restrictions to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
Best available noise control techniques (including mufflers, intake silencers, ducts, engine closures, and acoustically attenuating shields or shrouds) shall be used for all equipment and trucks as necessary. If impact equipment (e.g., jack hammers and pavement breakers) is used during Project construction, hydraulically or electric-powered equipment shall be used wherever practical to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used (a muffler can lower noise levels from the exhaust by up to about 10 dB). External jackets on the tools themselves shall be used, where feasible, which could achieve a reduction of 5 dB. Quieter procedures, such as drilling rather than impact equipment, shall be used whenever practical. Adequate muffling (with enclosures) shall be used to ensure local noise ordinance limits are met. Enclosure opening or venting shall face away from sensitive receptors. Enclosures shall be designed by a registered engineer regularly involved in noise control analysis and design. Operation of any stationary equipment beyond the time limits specified shall meet applicable noise ordinance noise limits. A contact person shall be designated for responding to construction-related issues, including noise. The name and phone number of the liaison shall be conspicuously posted at construction areas and on all advanced notifications.	Throughout construction activities	Conduct periodic on-site monitoring to confirm implementation of noise reduction measures and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
This person shall take steps to resolve complaints, including periodic noise monitoring, if necessary.					
NOI-1C: Project construction shall be restricted to the hours of 7:00 am to 5:00 pm or hours specified by the relevant jurisdiction's noise ordinance (refer to Section 4.11.3.3) or permit requirements, except during emergencies, special situations, and possibly HDD operations. Measures that could be implemented to reduce noise levels during nighttime operations include engine controls and enclosures listed in Mitigation Measure NOI-1B	Throughout construction activities	Conduct periodic on-site monitoring to confirm construction hours are in compliance with relevant jurisdiction's noise ordinance and submit verification documentation to Contra Costa County Department of Conservation and Development and other relevant jurisdictions.	Project Applicant	Contra Costa County Department of Conservation and Development and other relevant jurisdictions.	Initials: Date:
NOI-4A: Off-site truck trips to or from Project sites would be restricted to the hours of 9:00 am until 4:00 pm, Monday through Friday, to reduce traffic noise impacts on the CNEL during the more sensitive evening and nighttime hours.	Throughout construction activities	Conduct periodic on-site monitoring to confirm that truck trips to and from the Project sites are compliant and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
NOI-4B: Haul trucks would be operated in accordance with posted speed limits. In addition, truck engine exhaust brake use would be limited to emergencies.	Throughout construction activities	Conduct periodic on-site monitoring to confirm proper operation of haul trucks and submit verification documentation to Contra Costa County Department of Conservation and	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix					
Mitigation Measure	**Timing**	**Monitoring or Reporting Action**	**Monitoring or Reporting Entity**	**Enforcement Entity**	**Check-off**
		Development.			
Transportation and Traffic					
TRANS-1A: 60 days prior to start of Project construction, Air Products shall provide a Traffic Control and Implementation Plan to Contra Costa County for approval. Pavement damaged or trenched during construction of the pipeline would be promptly repaired. Repairs would take place prior to dismantling of traffic controls. This plan shall contain the procedures to be implemented for the application of standard lane closure, signing and control, after-hours maintenance of the construction zone, and emergency access and details for vehicles and pedestrians affected by construction. The site-specific traffic control plan shall include the following elements: • Traffic control for trenching in the shoulder with lane closures • Traffic control for conventional bore construction under Waterfront Road • Types of vehicle and maximum speed limit for each vehicle • Daily truck and vehicle trips • Haul routes • Designated staging/laydown areas for material deliveries • Emergency response time and access • Flag person requirements • Designated worker parking locations	Sixty days prior to the start of construction	Provide a Traffic Control and Implementation Plan that includes all required elements to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
	Throughout construction activities	Conduct periodic on-site inspections to confirm that there is no damage to roads that has not been immediately repaired and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
TRANS-1B: The Applicant (Air Products) shall notify tenants and owners of property within 300 feet of the edge of the construction corridor at least two weeks before construction of the pipeline segment. The business owners will also be provided name and phone number of an Air Products Construction Manager who can be contacted to address questions or concerns during the construction effort. The Applicant shall coordinate with the residents and business owners in the event that access to driveways cannot be maintained. The Project currently does not have any plans to block any driveways; however, if blocking becomes necessary, the Applicant shall develop plans that will assure access to properties abutting the road or provide alternative arrangements.	At least two weeks prior to the start of construction activities	Provide copies of communication sent to all property owners within 300 feet of the construction corridor to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
	In the event that access to driveways cannot be maintained	Provide consultation documentation with affected residents and business owners to Contra Costa	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
		County Department of Conservation and Development			
	If blocking driveways becomes necessary	Provide plans that assure access to properties abutting the road or provide alternative arrangements to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
TRANS-1C: The contractor(s), in coordination with the cities and Contra Costa County, shall develop site-specific traffic circulation and detour plans and submit them to the County for review and approval. The contractor(s) shall develop measures to address overlapping construction schedules and activities, lane closures and detours, and truck arrivals and departures.	Sixty days prior to the start of construction activities	Submit site-specific traffic circulation and detour plans, in coordination with the cities and Contra Costa County, to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
TRANS-1D: The Applicant and/or its authorized contractor shall comply with the Excavation, Backfill, and Paving sections of the Applicable Standard Specifications, the Project Drawings and the Traffic Control Plan. Excavation and backfill shall be per the "Typical Trench Detail (Street Construction)" included in the Project Drawings. Pavement restoration shall comply with the Applicable Standard Specifications for Asphalt Concrete materials and paving procedures.	During construction activities	Submit final construction specifications and any other relevant materials documenting compliance with the Excavation, Backfill, and Paving sections of the Applicable Standard Specifications, the Project Drawings, and the Traffic Control Plan to Contra Costa County Department	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
		of Conservation and Development.			
	During pavement restoration	Submit monitoring document that verifies pavement restoration complies with Applicable Standard Specifications for Asphalt Concrete materials and paving procedures to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
TRANS-1E: For traffic control for trenching in the shoulder and traffic control for trenching in the travel way that requires a lane closure (and cannot maintain one travel lane in each direction), the contractor shall submit a Worksite Traffic Control Plan showing the traffic control measures and/or details for vehicles and pedestrians affected by the construction at that site. The specific work hours in which the contractor may implement the Worksite Traffic Control Plans will need to be approved by the corresponding agency.	Prior to start of construction activities	Submit a Worksite Traffic Control Plan with traffic control measures and/or details for vehicles and pedestrians, to Contra Costa County Department of Conservation and Development and any other corresponding agency for approval.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:
TRANS-1F: The contractor shall provide traffic control to maintain a safe environment for vehicles traveling through the work zone, including vehicles needing emergency access, and construction workers inside the work zone. The contractor shall submit a Worksite Traffic Control Plan showing the traffic control measures and/or details for vehicles and pedestrians affected by the construction at that site. The pits on each side of the crossing must be protected, and the driver must be made aware of the construction ahead. The specific work hours in which the contractor may implement the Worksite Traffic Control Plan will need to be approved by the corresponding agency. EBRPD access requirements will be included in the Worksite Traffic Control Plan.	Prior to start of construction activities	Submit a Worksite Traffic Control Plan with traffic control measures and/or details for vehicles and pedestrians, to Contra Costa County Department of Conservation and Development and the East Bay Regional	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development and the East Bay Regional Parks District.	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
		Parks District.			
TRANS-1G: The Applicant and/or its contractor shall implement the Traffic Control Plan for the Project during Project construction. In instances where the Traffic Control Plan and the details presented within the Traffic Control Plan conflict with standard specifications and drawings of the local agencies, the more stringent requirements shall apply.	During construction activities	Conduct periodic on-site monitoring to confirm proper implementation of the Traffic Control Plan, and submit verification documentation to Contra Costa County Department of Conservation and Development y.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
TRANS-2: Implementation of Mitigation Measure TRANS-1A shall address impacts from eliminating one or more travel lanes.	Sixty days prior to the start of construction	Provide a Traffic Control and Implementation Plan that includes all required elements to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
	Throughout construction activities	Conduct periodic on-site inspections to confirm that there is no damage to roads that has not been immediately repaired and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
TRANS-5: The Applicant or the construction contractor(s) shall be required to obtain the necessary permits because the Project would affect roadways. These permits require the contractors to provide continuity of circulation for vehicular traffic, pedestrians, and bicyclists; reduce the potential for traffic accidents; and ensure worker safety in construction zones. The construction contractor(s) shall coordinate with local agencies to determine haul routes that would minimize truck traffic. Any construction or improvements occurring within county rights-of-way may only occur with an encroachment permit granted by the County's Application and Permit Center. The applicant would identify areas where construction would encroach upon County rights-of-way and obtain an encroachment permit as necessary from the County's Application and Permit Center. Additionally, the Applicant (Air Products or the Construction Contractor) shall keep all roadways along the haul route(s) free of debris resulting from construction related activity. The Applicant shall provide a street sweeping plan, to keep any import, export, excavated material, rock, or other debris off the roadway(s) identified as the haul route(s), which will be subject to the review and approval of the Public Works Department. The street sweeping plan shall be approved prior to commencement of any construction activities.	Prior to start of construction activities	Submit copies of local agency coordination to Contra Costa County Public Works Department	Project Applicant	Contra Costa County Public Works Department	Initials: Date:
		Submit copies of necessary permits to Contra Costa County Public Works Department.	Project Applicant	Contra Costa County Public Works Department	Initials: Date:
		Submit copy of street sweeping plan to the Contra Costa County Public Works Department.	Project Applicant	Contra Costa County Public Works Department	Initials: Date:
	Throughout construction activities	Conduct periodic on-site monitoring to confirm implementation of permit requirements and street sweeping plan and submit verification documentation to Contra Costa County Department of Conservation and Development.	Project Applicant and/or pipeline contractor	Contra Costa County Department of Conservation and Development	Initials: Date:
TRANS-7: Designated parking areas shall be specified in the Traffic Control and Implementation Plan described in Mitigation Measure TRANS-1.	Sixty days prior to the start of construction	Provide a Traffic Control and Implementation Plan that specifies designated parking areas to Contra Costa County Department of Conservation and Development.	Project Applicant	Contra Costa County Department of Conservation and Development	Initials: Date:

Table 3-1: Mitigation Monitoring and Reporting Plan Matrix

Mitigation Measure	Timing	Monitoring or Reporting Action	Monitoring or Reporting Entity	Enforcement Entity	Check-off
TRANS-9: A pavement monitoring plan would be submitted to the County Public Works Department and to the City of Martinez prior to construction for review and approval. The Applicant shall survey the pavement condition along the haul route (or any routes approved by the Public Works Department and the City of Martinez) that will be utilized for hauling or construction related activities. A pavement condition survey, that includes a preconstruction survey of the haul route or routes utilized, using a method approved by the Public Works Department and the City of Martinez, shall be submitted to the Public Work Department prior to the commencement of any hauling or construction activities. A post-construction pavement survey of the haul route or routes conducted after the end of work shall be utilized by the Public Works Department and the City of Martinez to determine the level of repair, rehabilitation, and reconstruction that may be required of the haul route or routes. Any permanent pavement damage, identified during pavement monitoring, would be restored to its pre-project condition immediately after construction has been completed. In addition, the required pavement repairs and/or rehabilitation measures shall be subject to the review approval of the City of Martinez, and shall be performed to the satisfaction of the City Engineer. Paving the entire width of the street along the pipeline (or paving one lane of traffic) may be required depending on the location and width of the trench, and on the condition of the pavement after completing the work. The Applicant shall bear the cost of repairing, rehabilitating, or reconstructing any roadways used for haul routes or construction to their pre-project conditions, as determined by the pavement surveys. Approval by the City of Martinez shall be requested following the post-construction pavement survey.	Prior to start of construction activities	Submit a pavement monitoring plan to Contra Costa County Public Works Department and City of Martinez for approval.	Project Applicant	Contra Costa County Public Works Department and City of Martinez	Initials: Date:
	Immediately after construction completion	Submit results of pavement survey that determines level of repair, rehabilitation, and reconstruction that would be required on haul route(s) to the Contra Costa County Public Works Department.	Project Applicant	Contra Costa County Public Works Department and City of Martinez	Initials: Date:
	If pavement survey finds that repair, rehabilitation, or reconstruction is required	Monitor pavement repair, rehabilitation, and reconstruction to confirm all roadways have been restored to pre-Project conditions and submit verification documentation to Contra Costa County Public Works Department and City of Martinez.	Project Applicant	Contra Costa County Public Works Department and City of Martinez	Initials: Date: