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PACIFIC GAS AND ELECTRIC COMPANY'S APPLICATION TO SELL THE RICHMOND-TO-PITTSBURG PIPELINE AND HERCULES PUMP STATION AND SAN PABLO BAY PIPELINE COMPANY'S APPLICATION TO OWN AND OPERATE THESE ASSETS – FINAL MITIGATED NEGATIVE DECLARATION

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SECTION 1.0
DESCRIPTION OF THE PROPOSED PROJECT

1.1 INTRODUCTION

Pacific Gas and Electric Company (PG&E) is seeking authority, through submittal of a Section 851 Application (No. 00-05-035) to the California Public Utilities Commission (CPUC), to sell its heated Richmond to Pittsburg Fuel Oil Pipeline to a new owner, the San Pablo Bay Pipeline Company (SPBPC), a subsidiary of Tosco Corporation. In a separate application (No. 00-12-008) to the CPUC, SPBPC is seeking authority under Sections 216 and 228 of the Public Utilities Code to own and operate the Richmond-to-Pittsburg Fuel Oil Pipeline and Hercules Pump Station as a common carrier pipeline corporation. The sale would include the Hercules Pump Station, located in the City of Hercules, and the pipeline from its point of origin in Castro Street (adjacent to General Chemical's facility) in the City of Richmond, to the former PG&E Pittsburg Power Plant in Pittsburg. The Richmond to Pittsburg Pipeline and Hercules Pump Station (the Pipeline) would be sold in their current "as-is, where-is, with all faults" condition.

PG&E filed its Section 851 application on May 15, 2000; it filed a supplement to its initial filing on August 1, 2000, covering mostly rate and cost issues, and including copies of the sales agreement between PG&E and SPBPC, and a limited Phase II Environmental Site Assessment of the Hercules Pump Station conducted for PG&E. PG&E submitted a Proponent's Environmental Assessment (PEA) on November 8, 2000, and filed a supplement to the PEA on February 2, 2001. SPBPC filed its application on December 12, 2000. Two parties, the West Contra Costa Unified School District and SCS Development Company, filed protests to SPBPC's application on January 16, 2001, raising various issues. SPBPC filed a reply to those protests on January 26, 2001.

This Initial Study analyzes the potential impacts to the environment that would result from the sale of the Pipeline by PG&E, the reconstruction of a missing 4,000-foot section of the Pipeline in Martinez, CA, and the future operation of the pipeline and pump station by SPBPC. The Richmond to Pittsburg pipeline system and the Hercules Pump Station are "operational" in the regulatory sense, in that PG&E has maintained all the needed permits and approvals and conducted all the required maintenance and inspections that are required for an operating system. However, PG&E ceased using the system for moving fuel oil to its Pittsburg Power Plant in 1982, though some oil was moved through parts of the system as recently as 1991. Because the CPUC now must decide whether or not to approve the PG&E and SPBPC applications, the California Environmental Quality Act (CEQA) requires the Commission to consider the potential

environmental impacts that may occur as the result of its decisions and to require mitigation for any potentially significant impacts that are identified.

In conducting its CEQA analysis, the CPUC must set the environmental baseline, which is used to compare with the predicted effects that approval of the applications would have. Because there have been significant advancements in the design and construction techniques of oil pipelines since the Richmond to Pittsburg Pipeline was built, this Initial Study assumes that the baseline for conducting all the following potential environment impact analysis is the present day condition and status of the pipeline and pump station system (i.e., a system that has not been used for regularly scheduled fuel oil shipments for 19 years, and has not moved any products for 10 years). This document analyzes the potential changes that would occur as a result of approval of the PG&E and SPBPC applications, compared to the above baseline.

The Initial Study examines PG&E's PEA and the environmental information supplied by PG&E and SPBPC in their applications and their other filings, as well as information gained from interviews with agency personnel and from other available documents. SPBPC did not file a separate PEA for its application, but noted in its January 26, 2001 reply to protests that the environmental review of its application is "being performed as part of PG&E's companion application, A.00-05-035." The Initial Study assumes the sale of the Pipeline would not change its current CPUC-approved use: transport of "oil, petroleum, and products thereof" (CPUC Decision No. 84448).

Much of the environmental analysis focuses on the potential impacts of the replacement of a segment of the pipeline that was removed to allow construction of a railway station in the City of Martinez. Under an agreement between PG&E and SPBPC, PG&E has secured the necessary rights of way for the 4,000-foot replacement section of the pipeline in Martinez. SPBPC would have the responsibility to construct the 4,000-foot replacement section, if it chooses to do so and obtains the requisite permits and approvals. Though neither PG&E nor SPBPC have submitted detailed plans for the construction of the 4,000-foot segment, the construction activity is a reasonably foreseeable activity that would occur as a result of approval by the CPUC of these two applications, and therefore must be analyzed in the CEQA document produced for these applications.

As a condition of the approval of its application for authority to own and operate the Richmond to Pittsburg Fuel Oil Pipeline and Hercules Pump Station, SPBPC would be responsible for implementing any mitigation measures pertaining to construction of the 4,000-foot replacement segment in Martinez, and to future operation of the pipeline and pump station. Though other state and local agencies would have permit and approval authority over aspects of the construction of the missing section, the CPUC shall remain the lead agency for monitoring compliance with all mitigation measures mandated in this document. All approvals and permits obtained by SPBPC shall be submitted to the CPUC mitigation monitor for review prior to commencing the activity for which the permits and approvals were obtained.

1.2 PROJECT LOCATION

The approximately 35-mile pipeline is located in Contra Costa County, California, and primarily follows the San Francisco Bay shoreline between the cities of Richmond and Pittsburg (**Figure 1-1**).

Detailed maps indicating the location of the pipeline are included in Exhibits A and B of the Company's response to the CPUC Notice of Deficiency Regarding Remaining Generation Asset Applications, A.00-05-035, Richmond-to-Pittsburg Fuel Oil Pipeline (Response to Deficiency Report).

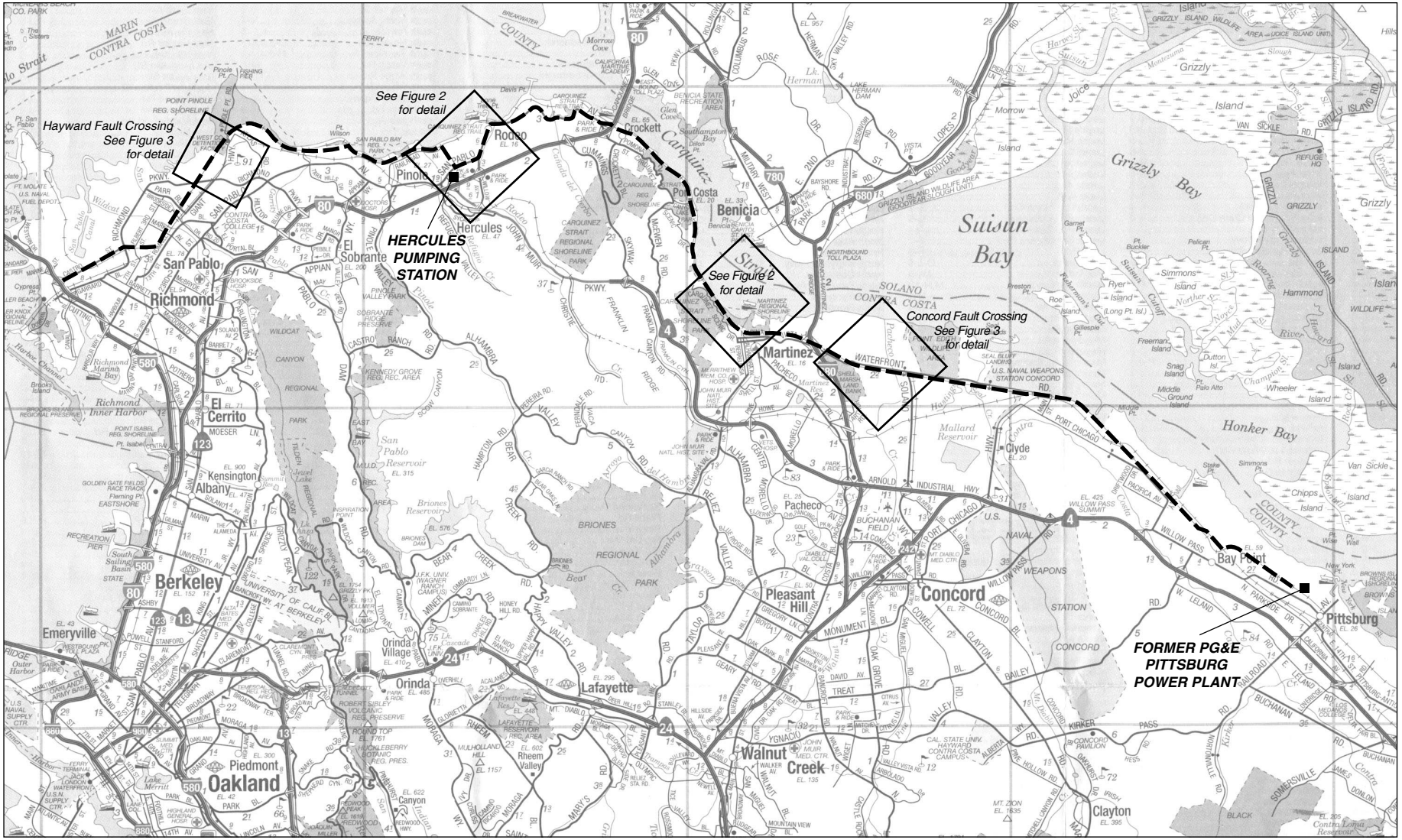
The pipeline originates west of Castro Street immediately adjacent to the General Chemical facility in Richmond. It travels northeast from the facility, along Castro Street to approximately the Richmond Parkway, then crosses Castro Street and enters the Union Pacific Railroad (UPRR) corridor. The pipeline follows the UPRR corridor north and east, crossing Wildcat Creek and San Pablo Creek. Before exiting the Richmond City limits, the pipeline leaves the UPRR corridor and parallels Cypress Avenue, just west of Pinole. It re-enters the UPRR corridor just east of Wilson Point and continues east through Pinole and into the City of Hercules. Approximately 1.5 miles east of the Hercules/Pinole city limits, the pipeline exits the UPRR corridor once again, traveling southeast directly to the Hercules Pump Station. The pipeline leaves the northeast corner of the Hercules Pump Station (see **Figure 1-2** for a local detail) and follows San Pablo Avenue through Rodeo, near the Tosco oil refinery, to Crockett. At Crockett, the pipeline continues through city streets, passing under Interstate 80 (I-80) at the Carquinez Bridge before re-entering the UPRR corridor just east of Crockett. The pipeline then continues east along the UPRR corridor through the City of Martinez, under Interstate 680 at the Benicia Bridge, across Pacheco Creek, and extends to just north of the limits for the City of Pittsburg, terminating just west of the Pittsburg Power Plant.

The Hercules Pump Station, the only above ground portion of the Pipeline, is located at 4200 San Pablo Avenue in the City of Hercules. The Hercules Pump Station is located on the north side of I-80 in the vicinity of the Tosco Rodeo refinery.

1.3 BACKGROUND

1.3.1 REGULATORY

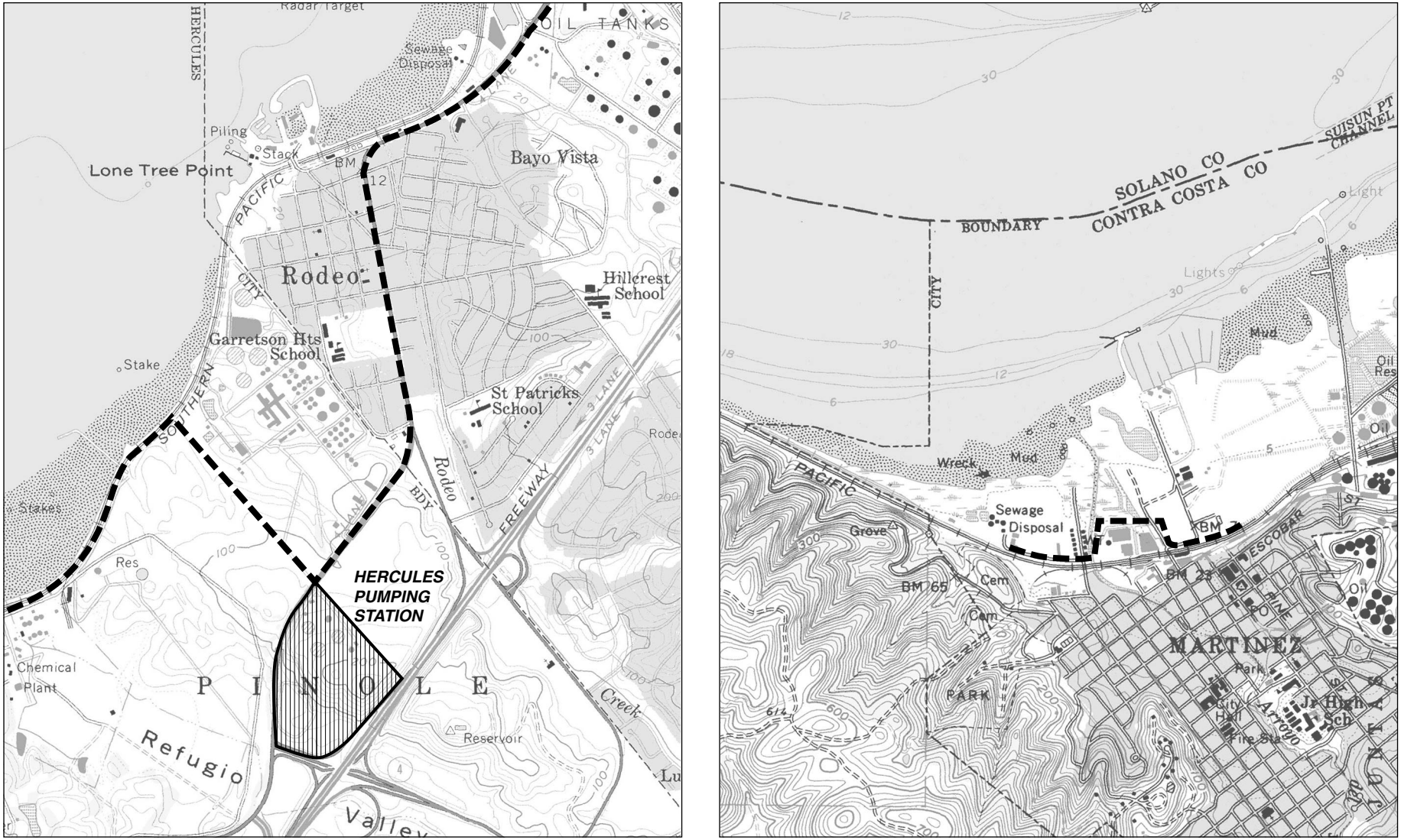
The Pipeline was originally authorized pursuant to a Certificate of Public Convenience and Necessity (CPCN) issued by the CPUC on May 20, 1975 and constructed in 1975, as part of a 42-mile long pipeline extending from the Chevron Richmond Refinery to the former PG&E Pittsburg and Contra Costa Power Plants. The CPCN authorized PG&E to construct the Pipeline and related assets and use them to transport oil, petroleum, and other similar products to PG&E's former Pittsburg and Contra Costa Power Plants. The Pipeline was designed to provide the power plants with heated, low-sulfur, residual fuel oil from the refinery. The Pipeline was used



SOURCE: Environmental Science Associates;
Base Map - California Automobile Association

PG&E Divestiture / 200496 ■

Figure 1-1
Project Location



SOURCE: Environmental Science Associates

PG&E Divestiture / 200496 ■

Figure 1-2
Site Locations

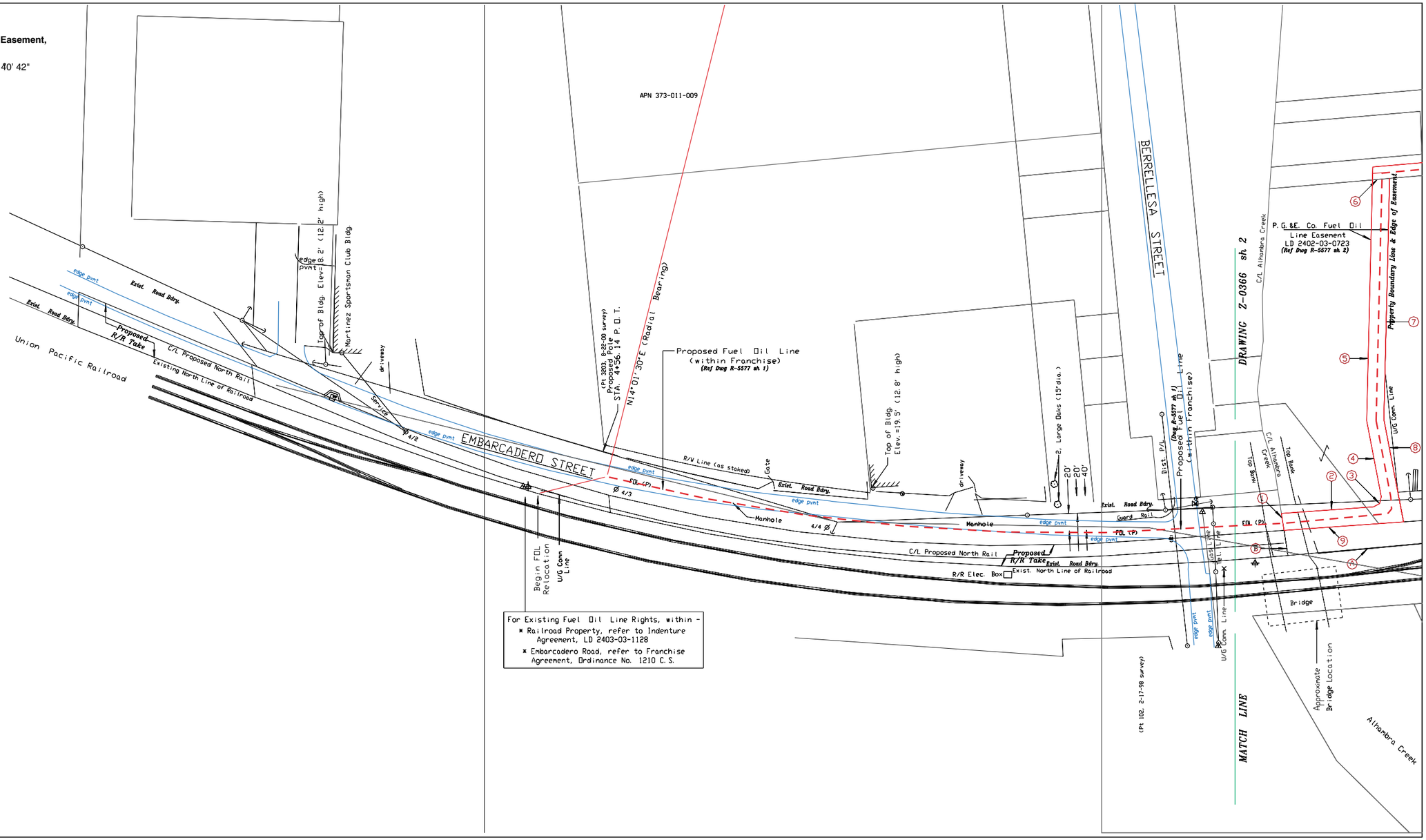
Boundary of P.G. & E. Co. Fuel Oil Line Easement, LD 2402-03-0723

- (A) Tie: R=11, 414.54' L=932.02' Delta=4 40' 42" (Radial Bearing = N9°51' 05" W at E' ly Terminus)
- (B) Tie: N8 °51' 05" W 20.07'
- (1) N8° 51' 05" W 20.07'
- (2) N85° 55' 54" E 107.87'
- (3) R=10.00' L=16.90' Delta=96 °48' 33"
- (4) N10° 52' 39" W 90.35'
- (5) N1° 22' 20" E 281.34'
- (6) N85° 04' 55" E 122.00'
- (7) S1° 22' 20" W 281.40'
- (8) S10° 52' 39" W 122.00'
- (9) S85° 55' 54" W 140.00'

LEGEND

- Fence Line
- C/L Railroad Tracks
- Edge of Pavement
- Curb F/L
- C/L Proposed Fuel Pipeline
- Pipeline Easement
- Match Line
- Gas Line Marker
- Gas Vent
- Water Meter
- Water Valve
- Water Vault
- Fire Hydrant
- Sewer Manhole
- Storm Drain
- Tree

0 125 Feet



SOURCE: PG&E, Environmental Science Associates

Figure 1-3
Proposed 4000' Replacement Pipeline
(Drawing Z-0366 Sheet 1)

Boundary of P.G. & E. Co. Fuel Oil Line Easement, LD 2402-03-0723

(A) Tie: R=11, 414.54' L=932.02' Delta=4 40' 42"
(Radial Bearing = N9° 51' 05" W at E' ly Terminus)
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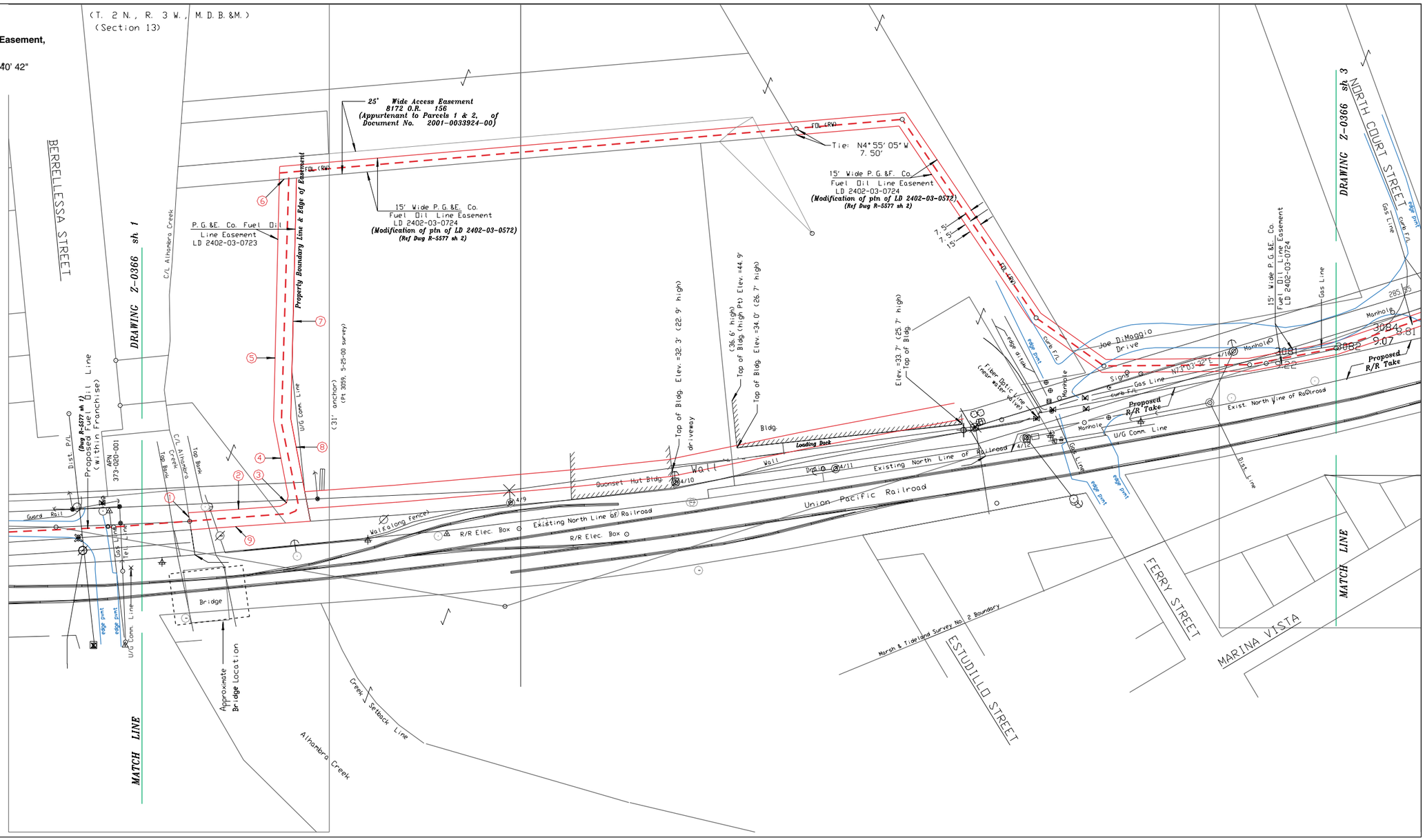
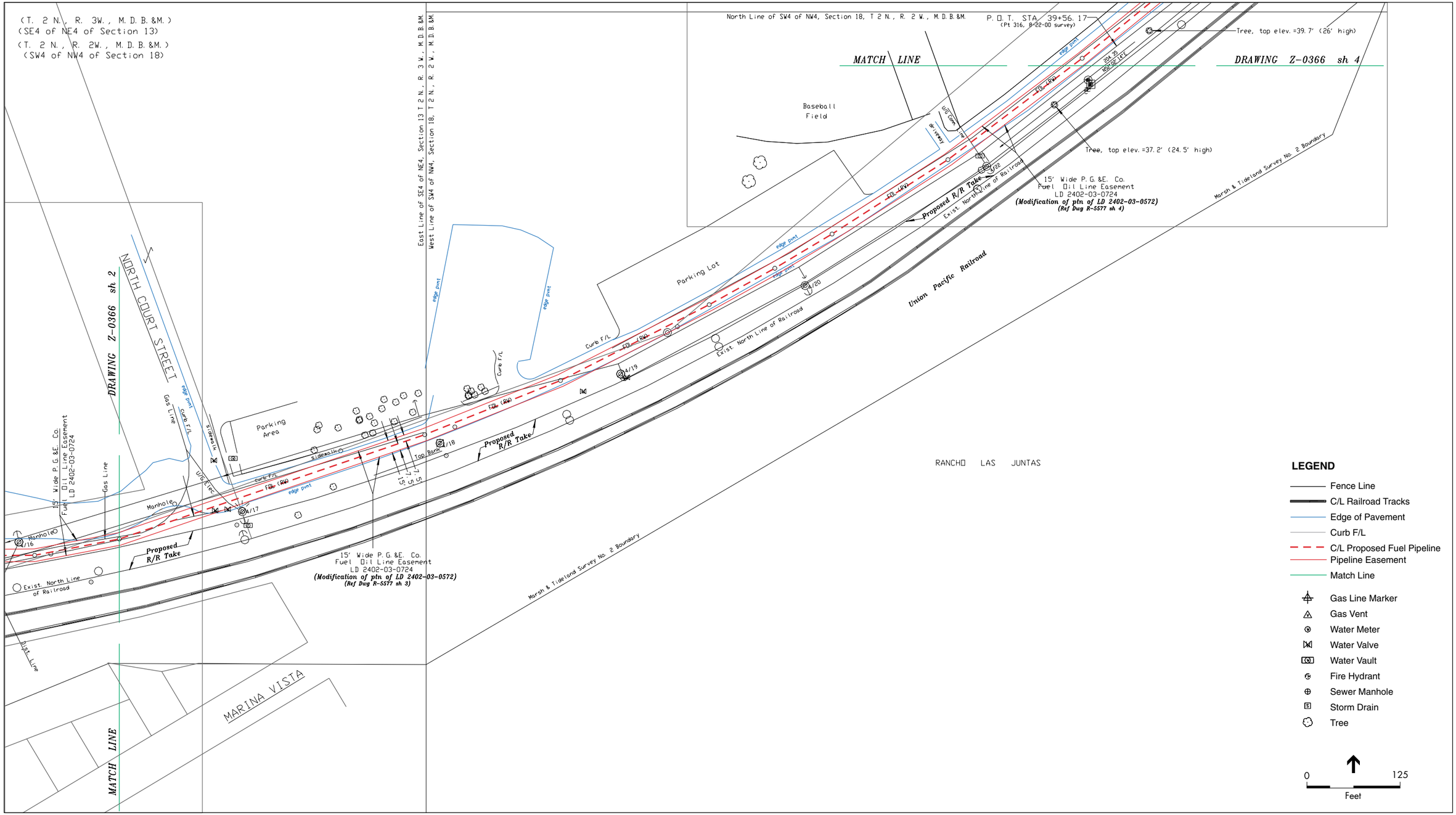
0 125 Feet



SOURCE: PG&E, Environmental Science Associates

Figure 1-4
Proposed 4000' Replacement Pipeline
(Drawing Z-0366 Sheet 2)

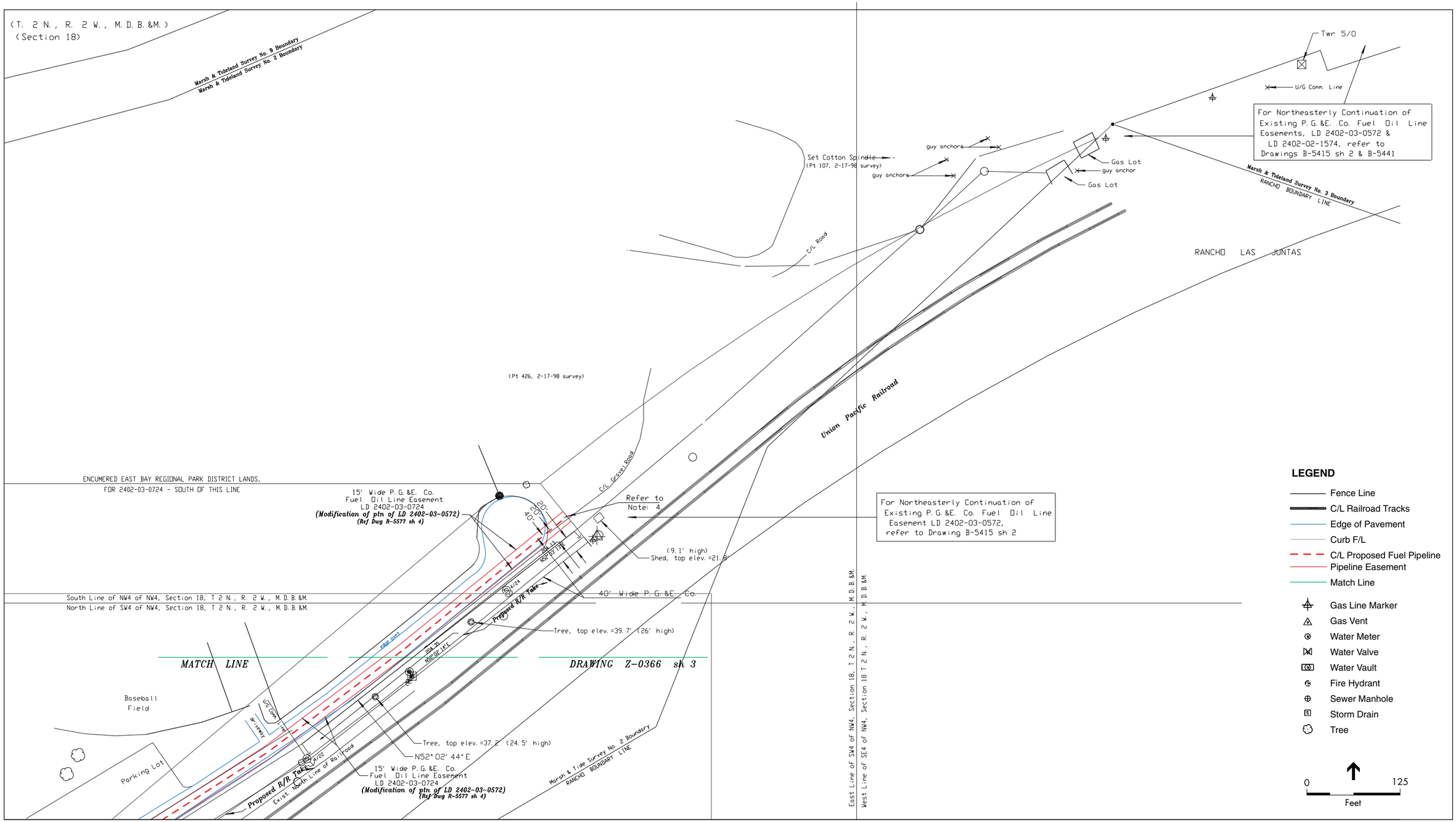


SOURCE: PG&E, Environmental Science Associates

PG&E Divestiture / 200496 ■

Figure 1-5

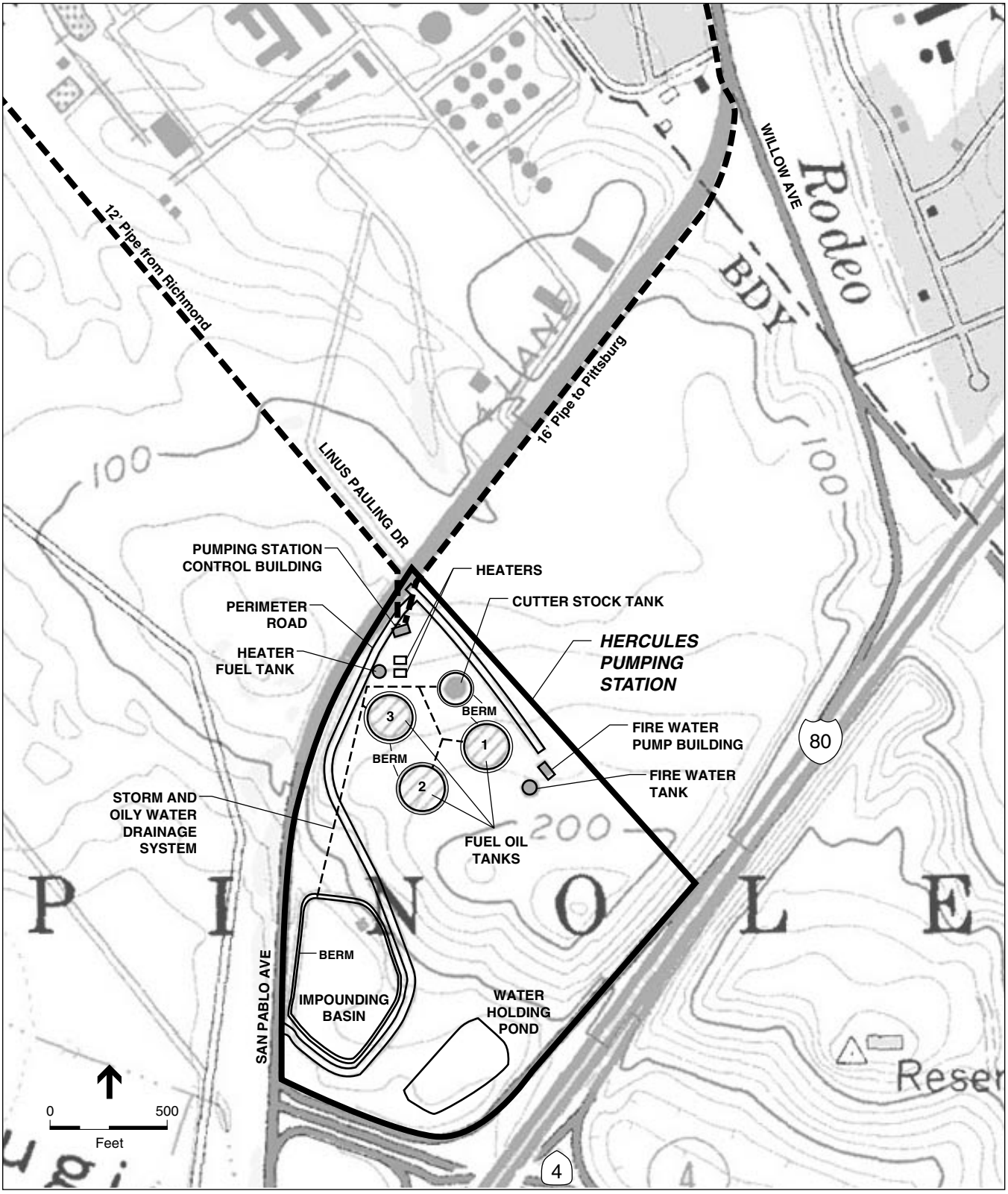
Proposed 4000' Replacement Pipeline
(Drawing Z-0366 Sheet 3)



PG&E Divestiture / 200496 ■

SOURCE: PG&E, Environmental Science Associates

Figure 1-6
Proposed 4000' Replacement Pipeline
(Drawing Z-0366 Sheet 4)



PG&E Richmond to Pittsburg Pipeline

PG&E Divestiture / 200496 ■

SOURCE: Environmental Science Associates

Figure 1-7
Hercules Pumping Station Detail Map

in this fashion from 1976 to 1982, when PG&E reduced its use of low-sulfur fuel oil because of its increasing expense. The pipeline has been maintained to provide stand-by capability in case of natural gas supply interruptions or similar circumstances. The last major movement of oil through the pipeline was in 1991, with several subsequent oil movements made to maintain the integrity of the pipeline.

The CPCN will not need to be transferred to SPBPC if the sale is approved since SPBPC has applied to the CPUC for authority to own and operate the Richmond to Pittsburg Fuel Oil Pipeline and Hercules Pump Station as a regulated common carrier, as specified in PUC Sections 216 and 228. Under PUC Section 1001, companies whose operations are solely related to the transport of oil (i.e., oil pipeline companies) are not required to obtain a CPCN, but must obtain common carrier status from the CPUC prior to commencing operations. Safety oversight of the pipeline and pump station operations would be the responsibility of the Office of the State Fire Marshall, which in California assumes such responsibility for the federal Office of Pipeline Safety for both intrastate and interstate pipelines in the state.

Pipeline and Hercules Pump Station as a regulated common carrier, as specified in PUC Sections 216 and 228. Under PUC Section 1001, companies whose operations are solely related to the transport of oil (i.e., oil pipeline companies) are not required to obtain a CPCN, but must obtain common carrier status from the CPUC prior to commencing operations. Safety oversight of the pipeline and pump station operations would be the responsibility of the Office of the State Fire Marshall, which in California assumes such responsibility for the federal Office of Pipeline Safety for both intrastate and interstate pipelines in the state.

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1.3.2 RECENT HISTORY

In 1998, an approximately 4,000-foot section of the pipeline was severed in the City of Martinez at the request of UPRR, to allow for installation of two additional tracks and relocation of the Martinez Intermodal (Railway) Station. The severed section of the pipeline was capped, filled with a sand/cement slurry mix, and retained in place. The remaining ends of the pipeline were extended beyond the location of the new railroad tracks and capped for future reconnection.

In 1999, PG&E sold its Pittsburg and Contra Costa power plants, including the portion of pipeline between these two plants and associated pumping stations located at the plant sites. PG&E has not used the remaining 35 miles of the pipeline and the Hercules Pump Station to deliver fuel oil

since the sale of the power plants. However, the pipeline continues to be maintained as an active, regulated pipeline system.

1.4 TERMS OF THE DIVESTITURE

PG&E submitted a Section 851 application, seeking to sell its heated Richmond to Pittsburg Fuel Oil Pipeline to SPBPC, and is seeking to establish the market value of the pipeline and pump station assets under Section 367(b) using the sale price of the assets as the market value. The sale would include PG&E's Hercules Pump Station, located in the City of Hercules, and the pipeline, from its point of origin in Castro Street adjacent to the General Chemical facility in the City of Richmond to the Pittsburg Power Plant in Pittsburg. The Pipeline is being sold in its current "as-is, where-is, with all faults" condition. The sale of the Pipeline is also based on its current California Public Utilities Commission (CPUC)-approved use, which is the transport of "oil, petroleum, and products thereof."

The proposed sale of the Pipeline is a result of Assembly Bill 1890, which required the PG&E to establish the market value of its non-nuclear generation-related assets by December 31, 2001. The proposed sale complies with CPUC Decision 00-03-019, which ordered the Company to file an application by May 15, 2000, to establish the market value of its remaining non-nuclear generation-related assets. PG&E believes that the proposed sale is not subject to recent legislation (ABX1-6) that prohibits PG&E from selling "facilities for the generation of electricity," as the Richmond to Pittsburg Fuel Oil Pipeline and Hercules Pump Station assets are not facilities for the generation of electricity.

In order to assure continuity of public use and thereby avoid any potential termination of the private grants of easements, the Pipeline would be sold to a regulated public utility pipeline corporation. There are a number of restrictions contained in the land rights documents accompanying the sale, including: restrictions on the number and the size of the permitted pipeline(s); restriction to only transport "fuel oil" or "hot oil" through the pipeline; and, for the portions of the pipeline that traverse through an easement, the requirement of the fee owner's consent to a transfer of the rights granted in the easement.

Subject to certain limitations and exceptions, PG&E will retain the liabilities associated with soil and groundwater contamination existing prior to the sale, as follows: (i) at the Hercules Pump Station (regardless of whether PG&E caused such contamination); and (ii) along the pipeline right of way (but only if such contamination was caused by PG&E). Under the Purchase and Sale Agreement, PG&E would retain the right to conduct post-sale remediation, if necessary, on those certain matters for which it retains responsibility.

1.5 PROJECT COMPONENTS

Pipeline and related assets consist of the following:

- The Richmond to Hercules section of the pipeline – an insulated, 12-inch diameter fuel oil pipeline, approximately 10 miles in length, extending from its point of origin in Castro Street immediately adjacent to General Chemical's Richmond facility, to the Hercules Pump Station, and associated land rights.

- The Hercules to Pittsburg section of the pipeline – an insulated, 16-inch diameter fuel oil pipeline, approximately 25 miles in length, extending from the Hercules Pump Station to the Pittsburg Power Plant, and associated land rights.

- The Hercules Pump Station, including associated tankage – The Hercules Pump Station is located on a 44.24-acre parcel (Parcel 135-7-110, Sections 1 and 2) and includes:

  – a control building,
  – a fire water pump building and tank,
  – an equipment pad with pumps and fuel heating units,
  – a facility drainage collection and treatment system,
  – aboveground storage tanks,
  – a two-thousand gallon underground containment tank,
  – transformers,
  – impounding basin, and
  – water-holding evaporation ponds.

1.6 GENERAL MAINTENANCE AND CONSTRUCTION METHODS

1.6.1 PROCEDURES FOR PIPELINE OPERATIONS

PG&E has stated that its records indicate there are no known locations on the Pipeline that need repair, except for the 4,000-foot section in Martinez that must be replaced. It anticipates that prior to operation, the new owner (SPBPC) will review all inspection records for the facilities and will conduct its own inspections after acquisition. Inspection of an existing pipeline may be done by using a "smart pig" device that can detect pipe-wall deterioration resulting from corrosion. Indications of reductions in wall thickness would be graded for severity and appropriate necessary maintenance actions would be taken.

The current "smart pig" launcher/receiver sites for the pipeline are located at the Pittsburg Pumping Station, Hercules Pump Station, and at the Richmond Metering Station. The Pittsburg Pumping Station is owned by Southern Energy, while the launcher/receiver at Richmond is located on property owned by Chevron. Any new owner of the Pipeline assets may need to secure agreement with Southern Energy and Chevron for continued access to the launcher/retriever sites.

Maintenance and repair activities on the pipeline could range from excavating certain sections to allow welding a full encirclement weld sleeve over impacted areas of the pipe (with wall thickness loss or other anomalies for relatively localized problems), to replacement of entire sections of the pipeline. Usually the replacements occur within five feet of the existing pipeline and within the existing easement.

A cleaning pig was run through the pipeline in 1998 and 1999 to remove any oil product from the pipeline. To preserve the pipe, the pipeline was filled with an inert gas where the pipeline is above the water table and with water treated with corrosion inhibitors in the marsh areas to keep the pipeline from floating to the surface. The inert gas will need to be purged and the treated water drained before the pipeline can be used again for transport of petroleum product. This could be accomplished initially when placing the pipeline in operation by pushing a pig through the pipeline with product at one end and diverting the treated water to an appropriate disposal site (i.e., a water treatment facility at one of the refineries), and venting off the gas at the other end. The treated water would be managed in accordance with applicable water quality regulations.

1.6.2 THE 4,000-FOOT REPLACEMENT SECTION IN MARTINEZ

Transport of product through the entire length of the pipeline is currently not possible due to the severed 4,000-foot section of pipeline in Martinez. In order for the new owner (SPBPC) to use the entire pipeline, this 4,000-foot section will need to be reinstalled. PG&E has obtained a 20-foot wide permanent easement (as shown in **Figure 1-2**) from the City of Martinez, and also has an easement from the East Bay Regional Park District to allow for the construction of the replacement section. SPBPC will be responsible, at its own expense, for the construction and reconnection of the new section of pipeline, and for obtaining any additional temporary easements or encroachment permits from the City of Martinez or the East Bay Regional Park District required for construction.

Because SPBPC has not defined in its Application (A.00-12-008) the exact methods to be used, this analysis assumes that the replacement pipeline section will be constructed using standard trenching and boring methods. Thus, this document examines impacts at a general level, based on available information and reasonable assumptions. The estimated construction right-of-way width, within which all construction activity would occur, would be 50 feet (a 15 to 20-foot permanent easement plus an additional 30-foot temporary easement). The depth of cover required for the pipeline would be a minimum of 42 inches. Material excavated from the trench would be stockpiled and could be used as backfill. Unsuitable materials from the excavation would be removed for disposal at an approved facility. The construction area would be minimized at stream crossings (where feasible) to minimize potential impacts. SPBPC would obtain all appropriate permits prior to construction, and would comply with permit mitigation measures and conditions, as further described below.

1.6.3 SYSTEM DESIGN OF THE REPLACEMENT SECTION

To comply with applicable state and federal regulations governing the construction and operation of "hazardous liquid" pipelines, which include oil pipelines, the 4,000-foot replacement section must be designed to the latest American Petroleum Institute Standard (APIS) and the size and grade of the pipe would be consistent with the extant section (16-inch outside diameter, 0.281-inch wall thickness, material grade X-46). Fuel oil pipelines nationally are subject to Pipeline Safety Regulations Title 49, Part 190-199, which specifies that the standard to which pipelines are designed, constructed, operated, and maintained is ASME B31.4, Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohol. The lengths of the pipe sections could vary based on construction needs. It is anticipated that the pipe would be purchased and installed in 40-foot long, pre-insulated sections.

1.6.4 CONSTRUCTION SCHEDULE AND PROCEDURES

Replacement of this section of pipeline would be expected to take approximately four to six weeks, depending on the time of year and weather conditions. Construction could be conducted up to 10 hours per day, five or six days per week, depending on the construction schedule and local requirements for keeping areas open to the public and businesses.

Though neither SPBPC nor PG&E have released details of any construction plans related to the missing section in Martinez, the likely sequence of events for a typical replacement project is as follows:

1. Determine which permits are required for the repair work and obtain necessary permits prior to commencing work.

2. Survey crews would mark the construction corridor limits.

3. The contractor would notify Underground Service Alert (USA) 48 hours before construction begins. This would alert the operators of other underground utilities to mark their facilities in the area of the construction.

4. The contractor would clear the right-of-way of vegetation. Water would be sprayed on unpaved surfaces, as needed, to control dust, following standard fugitive dust control measures mandated by the Bay Area Air Quality Management District.

5. The right-of-way would then be graded to remove the topsoil and surface rock, where needed, and topsoil would be stockpiled along the edge of the right-of-way for redistribution following construction.

6. Tractor-trailer trucks would deliver the insulated pipe sections to the job site. A hydrocrane or sideboom would unload the pipe sections at the site and place them along the cleared right-of-way.

7. Backhoes would dig the pipe trench and store the spoil material within the right-of-way. Workers would hand dig, when necessary, to prevent damage to underground utilities.

8. Conditions may require fitting the pipe to the right-of-way route. Hydraulic pipe bending machines would bend the pipe (or specially manufactured elbows could be used) to fit the contour of the trench.

9. Individual joints of pipe would be welded alongside the trench. An independent certified x-ray inspector would inspect the girth weld to ensure APIS compliance. An acceptable girth weld would then be prepared and coated. The contractor would check for and repair holes or voids in the pipeline coating.

10. If sharp angular rocks or other hard objects are encountered during excavation, the bottom of the trench would be padded with backfill material. This select backfill is bedding material that keeps the pipe coating free of damage.

11. Sidebooms would lower the pipe into the ditch.

12. Surveyors would locate the final horizontal and vertical position before the trench is backfilled. SPBPC would prepare record drawings for the entire replacement segment based on this as-built information.

13. Stockpiled spoil material or imported backfill would be used to cover the new pipeline. The backfilled soil would then be compacted.

14. Construction of the replacement line would continue until it is ready for tie-in to the existing pipeline at either end of the severed 4,000-foot section.

15. Cleaning devices known as “pigs” would be sent through the new section to clean out welding slag, dirt, debris, and other items that may have accumulated in the pipeline during construction. After hydrostatic testing, a pig would be sent back through the line to purge the water used for the testing.

16. The entire length of the new pipeline section would be hydrostatically pressure-tested with clean water. A certified test inspector would witness the hydrostatic pressure test to assure that it meets or exceeds the applicable construction standards. Water for the hydrostatic pressure test would be obtained from a municipal water source. Hydrotest water would be discharged into upland areas (grasslands) using a dewatering structure that would prevent erosion and movement of soil. Test water would not be directly discharged into any stream or wetland without prior authorization. A high-pressure, truck-mounted positive-displacement pump would pressurize the pipeline.

17. The contractor would make tie-in welds between the new pipeline and the existing section of pipeline after a successful hydrostatic pressure test. This would require the

removal of the caps installed on the existing section of the pipeline. The tie-in welds would then be x-rayed.

18. The entire right-of-way would be cleaned up after backfilling, compaction, hydrostatic testing, and tie-ins are completed. The contractor would return the right-of-way to its original contours and grade. The entire right-of-way would then be reseeded. The local Natural Resource Conservation Service office and the current landowners would be consulted to determine the seed mix and preferred method of restoration.

1.6.5 ROAD CROSSINGS

Following the new right-of-way obtained by PG&E, the new section would parallel Joe DiMaggio Drive east of Ferry Street and would parallel or be constructed in Embarcadero, west of Berrellesa Street. It would cross three roadways: Berrellesa Street, Ferry Street, and Joe DiMaggio Drive. The work would be completed using open trenching construction. The major construction activities associated with the installation are as follows:

- Saw-cut the pavement for the trench
- Excavate a trench for the pipeline
- Haul away and dispose of trenched and excavated spoils, if necessary to achieve compaction requirements, or stockpile excavated spoils
- Install the pipe
- Backfill the trench with either imported backfill, or native backfill
- Restore all paved surfaces and clean up the job site

1.6.7 CREEK CROSSINGS

Two creeks would be crossed for the installation of the 4,000-foot replacement section: Alhambra Creek and an unnamed drainage near Ferry Street. The PG&E application proposed that both creeks be crossed below the grade of the creek bed using auger boring or directional drilling techniques. These methods are described in more detail below. If SPBPC purchases the pipeline, as proposed, it would design and construct the creek crossing and would obtain all relevant permits and agency approvals prior to construction.

AUGER BORING

Auger boring involves excavating a bore pit on one side of the crossing and excavating a receiving pit on the other side. Boring utilizes an auger and power unit mounted on rails or a sideboom-suspended boring machine attached to a deadman (anchor). The power unit drives the auger inside a heavy-wall pipe casing until the power unit reaches the leading edge of the bore

pit. The power unit is disconnected from the auger, backed up, and a segment of the carrier pipe is welded to the casing segment already driven. Additional auger and carrier pipe segments are added successively until the bore reaches the other side of the crossing in the receiving pit. Soil excavated by the auger is removed from the pit by a backhoe. Once through, the power unit backs out the auger one segment at a time, leaving the pipeline in place under the crossing. In the receiving pit, the casing is removed.

DIRECTIONAL DRILLING

Directional drilling starts by boring a small-diameter pilot pipeline through to the receiving point. Drill bits are then dragged through the pilot hole using the pilot pipeline to increase the diameter of the bore to the size of the pipe required. High-pressure bentonite or polymer would be used, depending on the soil type, to cool the drill head, and either help lubricate the hole or help stiffen the soil. The pipe would be pulled back through the bored opening. Extra temporary workspace would be required on either side of the creek to accommodate drilling activities. If conducted properly, neither the creek nor the adjacent streamside vegetation would be disturbed during this procedure.

Spoils from the drilling operations would be in the form of mud and asphalt. During directional drilling, the lubricating fluid would be stored in containment tanks on the drilling machine. The fluid that emerges at the end of the borehole would be sucked up and pumped into trucks to be reused in the process. Spoils and asphalt would be loaded straight from the bore area onto trucks for removal or stored on site.

1.6.8 CONSTRUCTION EQUIPMENT

The pipeline replacement would likely require the following equipment:

- One to two backhoes
- One bulldozer
- One to two sideboom tractors
- One water truck
- One front-end loader
- Tractor-trailer rigs for delivery of the pipe to the right-of-way
- Pickup trucks for welders, surveyors, construction crews, x-ray technicians, and SPBPC inspectors

1.6.9 CONSTRUCTION INSPECTION

Work would be completed according to SPBPC plans and project specifications. Local agency construction inspectors, as well as CPUC and SPBPC construction monitors would be present to enforce the plans and project specifications.

1.6.10 CONSTRUCTION STAGING AND ACCESS

Access to the line would be on existing dirt and paved roads, including Berrellesa Street, Ferry Street, Joe DiMaggio Drive, and the railroad right-of-way. Widening or other improvements to these roads is not required.

Equipment, pipe, and other supplies needed for the work on this section would be stored either on the right-of-way or at staging areas close to the right-of-way. Permits and easements required for staging areas would be the responsibility of SPBPC.

MAINTENANCE PROCEDURES FOR HERCULES PUMP STATION OPERATIONS

Because the pump station has been maintained in stand-by status, only minor repair and routine maintenance would be required before restarting pumping operations. Repair and maintenance could include checking and replacing bearings and seals, inspecting pumps, calibrating flow meters, cleaning and inspecting tanks, replacing tank seals, etc. A maintenance crew of 5 to 10 members would likely perform the required maintenance.

Oily water (used for running cleaning pigs through the pipeline) is currently contained onsite in Main Storage Tank Number 3. Treatment or disposal of water in accordance with applicable regulations would be required before utilizing this tank.

1.6.11 REASONABLY FORESEEABLE USES OF THE PIPELINE

If its application is approved, SPBPC will be a common carrier pipeline corporation regulated by the CPUC. The Richmond to Pittsburg Fuel Oil Pipeline and Hercules Pump Station were constructed specifically to transport fuel oil and would require significant modification to be used for other purposes. Any change in use of the pipeline and Hercules Pump Station initiated by SPBPC would require CPUC approval. Any change in use would also require negotiation of amendments to easements and rights-of-way with numerous landowners. Tosco has one refinery in the area that could be fueled by petroleum. The Purchase and Sale Agreement prohibits SPBPC from seeking any change in the permitted use of the pipeline before the sale closes. With this restriction, it is reasonably foreseeable that for the immediate future following the sale, the use of the pipeline would remain as transport of petroleum products, quite possibly between any of the several Tosco refineries and transport facilities along the route of the pipeline.

1.6.12 POINTS OF ORIGIN AND DELIVERY

Identification of points of origin and points of delivery for the petroleum product along the Richmond to Pittsburg Fuel Oil Pipeline would be speculative at this point. It seems likely that tie-ins to the pipeline would need to be installed before the system would be fully operational.

The initial design of the pipeline anticipated future tie-ins by installing connection amenities for access to ship transportation at some of the refineries located along the shoreline between Richmond and Antioch. Also, the Hercules Pump Station was designed to allow movement of oil from a marine loading wharf that was once located at the former Gulf Refinery in Hercules, although no provisions were made to connect the wharf to the pipeline. There are also eight 10-inch tees on the Hercules to Pittsburg section of the pipeline, including one adjacent to Tosco's Rodeo refinery. There is also one 10-inch tap and a metering station at the Shore Terminal Tank Farm facility in Martinez.

Installation of tie-ins may require permitting and agency approval and land rights acquisition. These activities would be the responsibility of SPBPC, or the company desiring such a tie-in, once a plan for such facilities is developed. The permitting and approval activities, and the construction methods used for any such tie-ins would be similar to those used for the replacement section in Martinez, though (depending upon tie-in location and design) the pipeline used to complete the tie-ins could be considerably shorter than the replacement section in Martinez, and could be somewhat smaller in diameter. The identification of particular points of origin and delivery would be speculative at this time, although it is reasonable to assume that the end user of the petroleum product transported in the pipeline would be one of the several existing refineries near the pipeline route. Identification and analysis of specific points of origin and points of delivery for petroleum product from the Pipeline to Tosco's refinery would be speculative at this point as well. Therefore, this document will not further address the installation of tie-ins.

1.7 LONG-TERM OPERATION AND MAINTENANCE

1.7.1 HERCULES PUMP STATION

OPERATION

Operation of the Hercules Pump Station would include receiving the product from the pipeline, and storing, circulating, heating, and pumping the product to the pipeline. The procedures for performing specific actions would depend on the type of product being moved, (e.g., fuel oil or cutter stock), and the start and end points of the movement. The following general information applies to any oil product transfer at the Hercules Pump Station:

- When receiving and storing product, the piping system within the Hercules Pump Station allows for the measurement of product received.

- When circulating and heating the stored product, the heater can be fired with natural gas, diesel, or fuel oil. Normally, natural gas is used.

- Transporting heavy oil to another location would typically include preheating of the pipeline with cutter stock, preheating the oil, and pumping the oil to the other location. For this operation, the booster, main line pumps and heater would be used.

- A pipeline leak detection system would monitor the integrity of the pipeline and provides status at either the Hercules Pump Station control room or from Tosco's Santa Fe Springs Pipeline Control Center.

Currently, when the station is in stand-by mode, only one part-time operator is required to inspect the plant. When the station is in pumping mode, one operator is needed at the station to begin pumping. One operator remains-on-site while-system controls may be monitored by an operator off-site. Pump station valves can be operated from the control building.

MAINTENANCE

Maintenance would include checking and replacing bearings and seals, inspecting pumps, calibrating flow meters, and other routine mechanical inspections and replacements.

1.7.2 PIPELINE

OPERATION

When the pipeline is not in active use, the pipe is typically filled with cutter stock, which are primarily solvents that are compatible with oil. Prior to transporting fuel oil, the temperature of the pipeline is elevated to at least 50 degrees Fahrenheit above the pour point of the oil to be transported by moving heated cutter stock back and forth through the pipeline until the required temperature is reached. This operation is performed using the booster, heater, and mainline pumps at the Hercules Pump Station.

MAINTENANCE

Currently, a corrosion mechanic takes cathodic readings on the pipeline weekly. An operator is available to respond to USA requests and the pipeline route is inspected at least twice a month. An operator also inspects the condition of the isolation valves twice a year. Pipeline controls and communications are checked twice a month by an instrumentation/communications technician. Future operations must comply with US Department of Transportation Office of Pipeline Safety guidelines for inspections and maintenance, which include periodic inspections of the pipeline and all related components.

SECTION 2.0

ENVIRONMENTAL CHECKLIST & EXPANDED EXPLANATION

1. Project Title:	Pacific Gas and Electric Company Divestiture of Richmond-to-Pittsburg Fuel Oil Pipeline and Hercules Pump Station/San Pablo Bay Pipeline Company to Own and Operate the Richmond-to-Pittsburg Fuel Oil Pipeline and Hercules Pump Station
2. Lead Agency Name and Address:	California Public Utilities Commission Energy Division 505 Van Ness Avenue, 4th Floor San Francisco, CA 94102-3298
3. Contact Person and Phone Number:	Billie C. Blanchard (415) 703-2068
4. Project Location:	4200 San Pablo Avenue, Pumping Station Hercules, CA 94547 Contra Costa County
5. Project Sponsor's Name and Address:	Pacific Gas and Electric Company 77 Beale Street, P.O. Box 77000 San Francisco, CA 94177-0001 San Pablo Bay Pipeline Company 1660 West Anaheim Wilmington, CA 90744
6. General Plan Designation:	Various (see Section IX for complete listings)
7. Zoning:	Various (see Section IX for complete listings)

8. Description of Project:

Pacific Gas and Electric Company is seeking authority, through submittal of a Section 851 Application to the California Public Utilities Commission (CPUC), to sell its heated Richmond to Pittsburg Fuel Oil Pipeline and Hercules Pump Station to San Pablo Bay Pipeline Company (SPBPC), a subsidiary of Tosco Corporation. SPBPC is seeking authority under Sections 216 and 228 of the Public Utilities Code to own and operate the Richmond-to-Pittsburg Fuel Oil

Pipeline and Hercules Pump Station as a common carrier pipeline corporation. See the attached pages.

9. Surrounding Land Uses and Setting:

The approximately 35-mile pipeline is located underground in Contra Costa County, California, and primarily follows the San Francisco Bay shoreline between the cities of Richmond and Pittsburg. The land uses traversed by the pipeline are primarily characterized as urban; however, portions of the pipeline cross several open space/parklands. The Hercules Pump Station is located in the City of Hercules at 4200 San Pablo Avenue.

10. Other public agencies whose approval is required:

The anticipated replacement of a portion of the pipeline would require the new owner (San Pablo Bay Pipeline Company) to obtain various permits and discretionary approvals. These may include, but are not limited to, compliance with the following (note that these approvals are discussed in greater detail in their respective checklist section but are included for reference here in list form):

- Historic Resources, State Historic Preservation Office, Historic Preservation Act Section 106
- Federal Endangered Species Act 16 United States Code (USC) Sections 1531 – 1544
- Clean Water Act, Section 401/404, Water Quality Certification/Waiver, Title 33 USC Section 1125 et seq.
- U.S. Army Corps of Engineers, Title 33 USC Section 401 et seq., Title 33 Code of Federal Regulations (CFR) Part 320 et seq., Nationwide permit program
- Clean Water Act, Storm Water Regulations, Construction Activities, Title 40 CFR Part 122
- National Environmental Policy Act, Title 40 CFR Part 1501.3 (b)
- California Endangered Species Act, Fish and Game Code 2050 et seq.
- San Francisco Bay Conservation and Development Commission (BCDC) Permit
- California Native Plant Protection Act under the direction of the Department of Fish and Game
- Streambed Alteration, Fish and Game Code Section 1600
- Welding permit, Bay Area Air Quality Management District
- Local encroachment permits

- Compliance with local general plans and corresponding approval from the Cities of Richmond, Pinole, Hercules, Martinez, and Pittsburg, as well as, Contra Costa County
- Work permit from Union Pacific Railroad to work along easements

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology / Soils
☒ Hazards & Hazardous Materials	☒ Hydrology / Water Quality	☒ Land Use / Planning
☐ Mineral Resources	☒ Noise	☐ Population / Housing
☒ Public Services	☐ Recreation	☒ Transportation / Traffic
☐ Utilities / Service Systems	☒ Mandatory Findings of Significance	

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significant.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
I. AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☒	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☒	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

SETTING

The 35-mile-long pipeline extends mostly underground from its origin in Castro Street immediately adjacent to General Chemical's facility in Richmond to the Pittsburg Power Plant in Pittsburg. Aboveground facilities are limited to the Hercules Pump Station in the City of Hercules and a one-mile section of pipeline that is aboveground through the Avon Marsh in the unincorporated area of Avon, east of the City of Martinez.

LOCAL AND REGIONAL CONTEXT

The pipeline either transects or skirts the four physiographic divisions of Contra Costa County: (1) the northern San Francisco Bay depression, (2) the highlands of the Coast Range, (3) the intermountain valleys, and (4) the Sacramento-San Joaquin Delta.

The northern edge of Contra Costa County is moderately to highly scenic, with views of the waterways and surrounding bluffs of what is commonly referred to as the Bay-Delta Region, which includes San Pablo Bay, Carquinez Straight, Suisun Bay, Honker Bay, the confluence of the Sacramento and San Joaquin Rivers. The North Bay Views in the distance from the Bay-Delta Region include the Vaca Mountains to the north, the Sonoma Mountains to the northwest, the Black Hills (including Mount Diablo) and Briones Hills to the south, and the coastal hills of the Marin Peninsula to the west. The quality of many views has been reduced, however, as a result of industrial development along the shoreline, including sugar refineries, rail yards, solid waste handling facilities, dredge spoils disposal areas, and other similar industrial land uses. This lack of visual quality is particularly apparent in the immediate vicinity of the Union Pacific Railroad (UPRR) right-of-way, which parallels the shoreline of the San Pablo Bay.

VISUAL CHARACTER AND POLICIES

Richmond

The Richmond General Plan does not define any aesthetic goals. However, the visual elements in the pipeline corridor include the San Pablo Bay waterfront, as well as various urban and industrial developments. The pipeline facilities are entirely underground and within the UPRR right-of-way in this section.

Pinole

One of the goals listed in the City of Pinole General Plan is to enhance the city's character by protecting key visual resources. Visual resource protection policies relevant to the pipeline include:

- ***OS2.1. Scenic Resources***. Preserve significant knolls, stands of trees, rock outcrops, and ridgelines within the city that further the image of Pinole.
- ***OS2.2. View Protection***. Preserve prominent views of scenic resources and the bay, and consider visual access and view corridors when reviewing development proposals.
- ***OS2.3. Open Space Separators***. Maintain a continuous open space separator between Pinole and the cities of Hercules (Pinole Ridge) and El Sobrante/Richmond (El Sobrante Ridge).
- ***OS2.5. Ridgeline Protection***. Locate and design structures and other public and private improvements so as to minimize cut and fill areas that will impact public views, safety, and surrounding uses, and avoid building profiles (silhouettes) being located above the ridgeline when viewed from public streets and designated public access areas.

Hercules

Hercules has a scenic setting where the higher areas east of Interstate 80 (I-80) overlook San Pablo Bay, with distant views of the coastal range in Marin County. Areas west of I-80, closer to the bay (and the pipeline corridor) also have scenic views. The City of Hercules General Plan notes, "Proposed elements within view of designated scenic routes in the city should be reviewed in terms of their visual impact."

The Hercules Pump Station is situated on Pacific Gas and Electric Company property between San Pablo Avenue and I-80, north of Highway 4. Most of the station's facilities are situated in a cut/fill area on the side of a hill north of the Franklin Canyon Road interchange for I-80. The adjacent lots are undeveloped grasslands. The visible aboveground facilities at the Hercules Pump Station include buildings, storage tanks, pumps, and heater stations, transformers, utility lines, evaporation ponds, and an impounding basin.

Martinez

The City of Martinez has adopted specific open space "policy zones" to address concerns about preservation of scenic areas. The policy regarding the waterfront area includes:

- The North Contra Costa Waterfront Zone (which includes the area just west of the Carquinez Bridge to the land east of Pacheco Creek) should remain essentially unimproved and devoted to open space land use. Most of this area is comprised of the marshes and mudflats of the waterfront area that have high value as natural habitats and as scenic and recreational areas.

The 4,000-foot replacement section would be partially located within the Martinez Regional Shoreline Park, approximately 200 feet north of the existing line. The UPRR right-of-way forms a strong visual boundary separating the downtown area from the shoreline park and its facilities. Views northward from the railroad right-of-way are of flat grassy areas in the park, framed by the waters of the Carquinez Strait and the hills overlooking Benicia. Views to the east include the Benicia-Martinez Bridge and the structures of the Martinez Refining Company (Equilon). Residential and industrial areas lie to the south, and the Franklin Hills Open Space and Carquinez Strait Regional Shoreline Park to the west.

Pittsburg

The Pittsburg General Plan does not define any specific aesthetic elements for the area of the pipeline. The plan reports that perhaps the most distinguishing visual landmark in west Pittsburg is the Southern Energy Power Plant (formerly owned by Pacific Gas and Electric Company). The power plant (which is visible throughout much of downtown and west Pittsburg), along with the mixed urban and industrial areas of Pittsburg and the unincorporated area of Bay Point, negatively affects the scenic quality of the area along this section of the pipeline corridor.

Contra Costa County

The pipeline crosses four major unincorporated segments throughout Contra Costa County. The segments include the area between Richmond and Pinole, the area between Hercules and Martinez, the area between Martinez and the U.S. Naval Weapons Station (Port Chicago), and the area between the U.S. Naval Weapons Station (Port Chicago) and Pittsburg. The Contra Costa County General Plan 1995-2010 outlines development goals and policies that generally promote protection of the scenic qualities of the county, including:

- Preserve and protect areas of identified high scenic value, where practical, and in accordance with the Land Use Element map.

- Preserve the scenic qualities of the San Francisco Bay/Delta estuary system and the Sacramento-San Joaquin River/Delta Shoreline.

Between the City of Richmond and the City of Pinole, the pipeline traverses approximately one mile across the unincorporated area of El Sobrante. In this area, the pipeline runs along the shoreline of the San Pablo Bay Regional Shoreline Park. To the north, the scenic San Pablo Bay

and the bay's shoreline are the primary views. To the south, the unincorporated area of El Sobrante is a mix of industrial and urban development.

Between the City of Hercules and the City of Martinez, the route mainly follows the shoreline of San Pablo Bay and the Carquinez Strait. To the north of the pipeline corridor, the views of San Pablo Bay and Carquinez Strait are very scenic. However, views south of the pipeline corridor are generally of heavy industrial developments.

East of the City of Martinez to the U.S. Naval Weapons Station (Port Chicago), the pipeline rests on pile supports aboveground for approximately one mile. The framework and pipeline are concealed from the nearby public highway by the elevated UPRR right-of-way. The natural features of the area are highly scenic with views of Avon Marsh, Shell Marsh, Suisun Bay, the bay's shoreline, and Pacheco Creek. However, the marsh habitat is relatively flat and prolific industrial development is visible throughout the area.

Between the U.S. Naval Weapons Station (Port Chicago) and Pittsburg, in the unincorporated area of Bay Point, the visual characteristics remain mostly industrial and mixed urban developments.

U.S. Naval Weapons Station (Port Chicago)

Views along the pipeline corridor through this section are primarily the marshes and mud flats of the Carquinez Strait along with the prominent industrial complexes located in the U.S. Naval Weapons Station (Port Chicago) and the adjacent unincorporated areas of Contra Costa County.

AESTHETICS IMPACTS DISCUSSION

a) The proposed project makes use of an existing underground pipeline that passes through the cities of Richmond, Hercules, San Pablo, Pinole, Rodeo, and Martinez, and unincorporated areas of Contra Costa County, including Crockett, and an existing pump station located in the City of Hercules. However, an approximately 4,000-foot section of the line located within the City of Martinez was previously removed to allow construction of a rail facility. The identified new owner of the facility, San Pablo Bay Pipeline Company (SPBPC) apparently intends to replace this section of the pipeline. SPBPC has not formally announced its plans for construction activities for the missing section, or for maintenance and repair activities for the existing route. Much of the Richmond to Pittsburg Fuel Oil Pipeline route travels through areas that are of local importance either as viewpoints of local natural features, including San Pablo Bay, Carquinez Straight, Suisun Bay, and Honker Bay from the shorelines, or as important aesthetic resources that are viewed from other scenic viewpoints. In Martinez, the intended new route for the 4,000-foot missing section travels near important aesthetics resources, including Martinez Regional Shoreline (East Bay Regional Parks District), Waterfront Park, Martinez City Park, Historic Downtown Martinez, Carquinez Straight Shoreline Park, and Carquinez Scenic Drive.

For the existing underground pipeline, located primarily within railroad or public street right-of-ways, the sale and subsequent operation of the pipeline would have little to no effect on aesthetic resources along the pipeline route, with the possible exception of temporary disruption of views if and when SPBPC replaces or adds components of the pipeline. The pump station, located on 44.2 acres of land in the City of Hercules, is ~~generally~~ somewhat shielded from view, but still visible from the North Shore Business Park, the New Pacific Properties Specific Plan planned residential neighborhoods west of San Pablo Avenue, the Foxboro residential neighborhood across Interstate 80 on the westerly side of the City of Hercules, and the hillside residences in the community of Rodeo. ~~from all directions, and its~~ The pump station's construction, however, preceded that of essentially all development around it, and is considered part of the baseline setting. Therefore, the project's only likely potential impact on aesthetics resources would be along the 4,000-foot replacement section in the City of Martinez. SPBPC has not yet announced its plans for the underground construction of the missing section. However, as mitigation for construction activity that SPBPC might conduct, PG&E stated in its Proponent's Environmental Assessment that "landscape features and recreational equipment would be restored to pre-construction conditions," and that "construction activities affecting parklands and trail systems would be coordinated with the East Bay Regional Park District and the City of Martinez." SPBPC would be required to implement these mitigation measures as part of the sales agreement for the Pipeline, but are also formalized below. Therefore, with these mitigation measures, the impact of construction on aesthetics resources would be less than significant.

Since the crossing at Alhambra Creek and the unnamed drainage near Ferry Street is to be performed by underground auguring or directional drilling and property landscaped, there would be no permanent aesthetic impacts during operation of the pipeline.

Impact I.1: Installation of the 4,000-foot replacement section of pipeline in Martinez would have a temporary, but significant impact on scenic vistas viewable from the adjacent shoreline parks administered by the East Bay Regional Park District and from portions of the City of Martinez.

Mitigation Measure I.1: Prior to commencing construction activities, the new owner (SPBPC) of the Richmond to Pittsburg Fuel Oil Pipeline and Hercules Pump Station shall coordinate construction activities affecting parklands and trail systems with the East Bay Regional Park District and the City of Martinez. This shall include submittal of an aesthetic resources plan to the City and the Parks District that addresses the potential for construction activities to have impacts on aesthetics resources, including specific measures that will be taken to restore such resources to pre-construction conditions or to make improvements to these resources in cooperation with the City and the Parks District. The plan shall also include: details of the methods of shielding and placement of new above-ground components, such as valve stations, that would be viewable where no such components currently exist. The plan shall include a discussion of actions taken such that final pipeline alignment and construction activities associated with this project shall not interfere

with the implementation of the Martinez Intermodal Project (which includes the new bridge over Alhambra Creek) and the Martinez drainage project. Above ground facilities, such as valve stations, shall not be constructed within EBRPD parkland or within the viewshed of sensitive receptors within EBRPD park or trail corridors. SPBPC shall not commence construction activities along the replacement segment in Martinez until the aesthetics resource plan is reviewed and approved by the East Bay Regional Parks District, the City of Martinez, and the CPUC mitigation monitor. The CPUC's mitigation monitor shall verify compliance with the aesthetics plan during construction of the replacement section.

Significance after mitigation: Less than significant.

This proposed mitigation measure would reduce to a less than significant impact the potential for the project to create potential impact on aesthetics resources as the result of construction activities.

b) No highways along the pipeline route are Officially Designated Scenic Highways, nor are any currently eligible for such designation. Carquinez Scenic Drive parallels the pipeline route in and near Martinez, but the crossing of Alhambra Creek, is on the opposite side of the railroad tracks and more than 800 feet northeast of Carquinez Scenic Drive. Though this road is an important local scenic resource, it is not an Officially Designated Scenic Highway. The proposed 4,000-foot replacement section also travels through the Martinez Regional Shoreline to the west of Martinez, but the short segment would not substantially affect the views from the roadway. Though historic buildings are within one-quarter mile of the missing section in the City of Martinez, construction of the missing section would likely not have any effect on nearby historic buildings. The potential for the project to substantially damage scenic resources, including trees and rock outcroppings along the route, is similar to the potential to substantially affect a scenic vista. Construction activities could have a temporary effect on some resources that are considered scenic resources by people living in or visiting the area, especially the vegetation that currently covers or adjoins the intended route for the new segment.

Impact I. 2: Vegetation removal, construction activity, and installation of the proposed 4,000-foot replacement section in Martinez would affect local scenic resources in the vicinity of the construction activity.

Mitigation Measure: Implement Mitigation Measure I.1.

Significance after mitigation: Less than significant.

c) The project's potential to substantially degrade the existing visual character or quality of the site and its surroundings is also similar to the potential to negatively affect scenic vistas and scenic resources. The project route travels through a wide variety of terrain and development, with either lush vegetation or developed infrastructure lining the route. Much of the route is within rail or road right-of-way, immediately adjacent or under

railroad tracks or city streets. Minor maintenance activities along this route would not be expected to have a substantial negative effect on the visual character or quality of the project route. The potential for the construction of the missing section in Martinez to substantially degrade visual quality and character of the area is similar to the potential to damage scenic resources or scenic vistas. The planned route for the 4,000-foot replacement section borders parklands and other important scenic resources, with lush vegetation being the primary visual character for people visiting the parks. With proper construction and restoration techniques, the buried pipeline would not substantially degrade the visual character or quality of the area, as the pipeline would not be visible to people visiting or living in the area. A potential exception would be the few aboveground components, such as valve stations, that would be viewable where no such components currently exist. With proper shielding, exterior treatment, and placement of these new aboveground components, the project would likely not substantially degrade the visual character or quality of the project area.

Impact I. 3: Vegetation removal, construction activity, and installation of the proposed 4,000-foot replacement section in Martinez would degrade the existing visual character and quality of the project area.

Mitigation Measure: Implement Mitigation Measure I.1.

Significance after mitigation: Less than significant.

d) Operation of the existing pipeline and construction of the missing section would not entail the introduction of new lighting into the area. Therefore, there is no potential for the project to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

REFERENCES

California Department of Transportation Web Site on Scenic Highways, http://www.dot.ca.gov/hq/LandArch/scenic_highways/

Environmental Science Associates, 2001 site visit to project route, February 2001.

City of Hercules. 1998. City of Hercules General Plan.

City of Martinez, General Plan, as amended to January 1995.

City of Pinole. 1995. City of Pinole General Plan.

City of Pittsburg. 1988. Pittsburg General Plan.

City of Richmond Planning Department. 1994. Richmond General Plan, Volume Two – Technical Appendix.

Contra Costa County, Contra Costa County General Plan, July 1996.

Dowswell, David, City Planner, City of Pinole Planning Department, personal communication, March 7, 2001.

McBride, Janet, Project Manager, San Francisco Bay Trail, Association of Bay Area Governments, March 7, 2001.

Pacific Gas and Electric Company. 1973. Applicant's Environmental Impact Report, Richmond, Pittsburg, Antioch Fuel Oil Pipeline.

Pacific Gas and Electric Company. 1974. Final Environmental Impact Report for the Richmond-Antioch Fuel Oil Pipeline.

Pacific Gas and Electric Company, Proponent's Environmental Assessment, November 8, 2000.

Thompson, Laura, Bay Trail Planner, San Francisco Bay Trail, Association of Bay Area Governments, March 7, 2001.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. **Would the project:**				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

SETTING

Contra Costa County is comprised of 470,400 acres, with over half (254,445) of these acres allocated to farmlands and harvested cropland. In 1999, the total gross value of agricultural products and crops reached $86,693,780, a decline of $71,470 compared to 1998 (Contra Costa County, 1996). Contra Costa County, like many others in California, has experienced a decline in the amount of agricultural land, due to such factors as urban encroachment.

From a historical standpoint, local agricultural operations adjacent to the pipeline alignment have been replaced with new residential and industrial development. The California Department of Conservation's Farmland Mapping and Monitoring Program inventoried agricultural resources acreage in 1998. According to the 1998 map, the alignment does not intersect with any Prime Farmlands, Farmland of Local Importance or Unique Farmlands. A small portion of land to the east of the Hercules Pump Station is designated as Farmland of Statewide Importance; however, these lands are not intersected by the actual alignment (California Department of Conservation, 1998).

The majority of the pipeline corridor lies within the Union Pacific Railroad (UPRR) easement, where several utility lines also exist. Land adjacent to this easement is primarily residential, commercial, and industrial. Approximately four miles of the Briones Hill Agricultural Preserve lies adjacent to the pipeline, west of the City of Martinez. At higher elevations (not adjacent to the pipeline), land is primarily used for grazing. North Richmond has some areas adjacent to the pipeline that are used for nursery crops (e.g., flowers, house plants, shrubs, and Christmas trees) grown in mainly greenhouse settings (Pacific Gas and Electric Company, 2000).

The pipeline originates within the City of Richmond at the Richmond Pump Station within the UPRR easement. Land uses adjacent to the 100-foot UPRR right-of-way are primarily designated for light industrial and residential uses. Light industrial zoning designations within Richmond, including areas between Parchester and north Richmond, allow for commercial nurseries with aboveground containment (City of Richmond. 1994). Any agriculturally related uses within the light industrial zone are considered an interim land use according to the policies contained within the Open Space and Conservation Element of the Richmond General Plan.

The North Richmond Shoreline Specific Plan Environmental Report referred to a 50 acre parcel consisting of dry cultivated pasture in 1992 south of Rheem Creek and west of the UPRR track (Pacific Gas and Electric Company, 2000). According to the document, agriculture activities on the property were not a viable economic use at that time. Subsequent aerial photograph interpretation revealed that this land is currently used for nursery crops with some small vacant areas. The remaining alignment of the pipeline within the City of Richmond encompasses several regional shorelines, devoted primarily to open space use.

Within the cities of Pinole and Hercules there are minor agricultural operations involving seasonally livestock grazing (City of Hercules, 1998. and City of Pinole, 1995). Properties containing these uses are not traversed by the pipeline alignment. The Briones Hills Agricultural Preserve is adjacently south of the pipeline alignment, east of Crockett and west of the City of Martinez. The preserve was created to maintain open space for agricultural, grazing, and parkland use (Pacific Gas and Electric Company, 2000). After review of aerial photographs for this portion of the alignment, no signs of current agricultural uses were observed within the preserve in areas adjacent to the pipeline alignment.

The 4,000-foot replacement section of the pipeline within the City of Martinez traverses through an urban environment and would not traverse any lands facilitating agricultural operations. The remaining portion of the alignment travels to the east and parallels the UPRR up the city of Pittsburg. This entire section of the alignment passes through mainly low-lying shoreline areas, which contain no existing agricultural operations. The majority of the agricultural uses that lie within Contra Costa County are located to the east of Antioch and are a considerable distance outside of the pipeline corridor (Contra Costa County, 1996).

REGULATORY SETTING

STATE REGULATORY OVERSIGHT

California Land Conservation Act

Under the provisions of the Williamson Act (California Land Conservation Act 1965, Section 51200), landowners contract with the County to maintain agricultural or open space use of their lands in return for reduced property tax assessment. The contract is self-renewing and the landowner may notify the County at any time of intent to withdraw the land from its preserve status. Withdraw involves a ten-year period of tax adjustment to full market value before

protected open space can be converted to urban uses. Consequently, land under the Williamson Act Contract can be in either a renewal status or a nonrenewable status. Lands with a nonrenewable status indicate the farmer has withdrawn from the Williamson Act Contract and is waiting for a period of tax adjustment for the land to reach its full market value. Nonrenewable lands are candidates for potential urbanization within the next ten years (California Department of Conservation. 2000).

Farmland Mapping and Monitoring Program

The California Department of Conservation, under the Division of Land Resource Protection, has set up the Farmland Mapping and Monitoring Program (FMMP) which monitors the conversion of the state's farmland to and from agricultural use. The map series identifies eight classifications and uses a minimum mapping unit size of 10 acres. The program also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The program maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" and every two years. The FMMP is an informational service only and does not constitute state regulation of local land use decisions (California Department of Conservation. 2000). Four categories of farmland, Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, are considered valuable and any conversion of land within these categories is typically considered to be an adverse impact. As indicated in the 1998 FMMP Map, the pipeline alignment does not pass through any areas designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance (California Department of Conservation. 1998).

LOCAL REGULATORY OVERSIGHT

Contra Costa County

The Contra Costa County General Plan Conservation Element provides the framework for preserving the remaining agricultural lands that reside within the County. The following policies are contained within the Agriculture Section of the Conservation Element and dictate what uses are permitted on agriculturally designated lands:

Policy 8-29 - Large contiguous areas of the County should be encouraged to remain in agricultural production, as long as economically viable.

Policy 8-30 - In order to reduce adverse impacts on agricultural and environmental values, and to reduce urban costs to taxpayers, the County shall not designate land located outside the Urban Limit Line for an urban land use.

Policy 8-31 - Urban development in the future shall take place within the Urban Limit Line and areas designated by this plan for urban growth.

Policy 8-32 - Agriculture shall be protected to assure a balance in land use. The policies of Measure C 1990 shall be enforced.

Policy 8-33 - The County will encourage agriculture to continue operating adjacent to developing urban areas.

Policy 8-34 - Urban developments shall be required to establish effective buffers between them and land planned for agricultural uses.

Policy 8-35 - Residents in or near agricultural areas shall be informed and educated regarding the potential nuisances and hazards associated with nearby agricultural practices.

Policy 8-36 - Agriculture shall be protected from nuisance complaints from non-agricultural land uses.

Policy 8-37 - The use of toxic and nutritive chemicals by agricultural operators shall be minimized.

Policy 8-38 - Agricultural operations shall be protected and enhanced through encouragement of Williamson Act contracts to retain designated areas in agricultural use.

Policy 8-39 - A full range of agriculturally related uses shall be allowed and encouraged in agricultural areas.

Policy 8-40 - A 4-acre minimum parcel size for prime productive agricultural land (Class I and II Soils per SCS and Use Capability Classification) shall be established by the County for land outside the designated Urban Unit line. To the extent feasible, the County shall enter into preservation agreements with cities in the County designed to preserve land for agriculture.

AGRICULTURAL RESOURCES IMPACTS DISCUSSION

a-c) As discussed in the Regulatory Setting, the Pipeline does not traverse any areas designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance. Therefore, the proposed valuation and transfer of the Pipeline would not result in a subsequent conversion of Farmland as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. Additionally, the continued operation and construction of the 4,000-foot replacement section in the City of Martinez would not involve other changes in the existing environment which, due to their location or nature, would result in conversion of Farmland, to non-agricultural use. As a result, no impact is expected.

In Martinez, a four-mile segment of the pipeline is adjacent to, but does not cross, the Briones Hill Agricultural Preserve, which is currently under a Williamson Act contract. Operations in the past have not conflicted with the current use, and therefore, it is assumed that the continued operation of the pipeline in this general vicinity would not

conflict with existing the agricultural zoning designation, or Williamson Act contract. As a result, no impact is expected.

REFERENCES

California Department of Conservation, 2000. Online. Farmland Mapping and Monitoring Program and Land Conservation Act of 1965 (Williamson Act)

California Department of Conservation, 1998. Farmland Designation Map for Contra Costa County, 1998.

Contra Costa County, 1996. Contra Costa County General Plan 1995-2010.

City of Richmond, 1994. Richmond General Plan, Volume One – Goals, Policies, Guidelines, Standards, and Implementation Programs.

Pacific Gas and Electric Company, 2000. Proponents Environmental Assessment to Establish market Value for and Sell its Richmond-to-Pittsburg Fuel Oil Pipeline and Hercules Pump Station Pursuant to Public Utilities code Section 367 (B) and 851. Application Number 00-05-035.

City of Hercules, 1998. City of Hercules General Plan.

City of Pinole, 1995. City of Pinole General Plan.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

SETTING

The pipeline corridor and the Hercules Pump Station are located in Contra Costa County which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The Air District covers all or part of 9 counties in the San Francisco Bay region, and the airshed has been designated by the California Air Resources Board (ARB) as nonattainment of the Federal and State ambient air ozone standards, as well as nonattainment of the state PM-10 standard. Most of the rest of California also does not meet the state PM10 standard. The Bay Area region has been designated as attainment or unclassified for State and Federal standards for the other criteria pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. Ambient air measurements over the past five years at four monitoring stations in Contra Costa County have shown occasional exceedances of the State and Federal ozone standards and of the State PM-10 standard.

The Hercules Pump Station is the only portion of the existing facility that generates measurable air pollutant emissions. The pump station includes two fuel oil heating units that have maximum heat input rates of 30 million BTU/hr. each. The heating units have BAAQMD air permits that allow the use of natural gas, number 2 fuel oil (diesel), or number 6 fuel oil (Bunker C). In the past, these heating units have used natural gas exclusively. Other equipment at the pump station with the potential to emit air pollutants include two diesel firewater pumps. The pumps are operated only for short time periods during monthly tests and if there is a fire emergency. Therefore, routine emissions from the firewater pumps are negligible. The pump station contains

storage tanks for fuel oil and diesel fuel. Emissions from the tanks are negligible because of the relatively low volatility of the stored liquids.

AIR QUALITY IMPACT DISCUSSION

The sale of the Pipeline is based on its current CPUC-approved use, which is the transport of oil, petroleum and related products through the pipeline, and it is conditioned on the securing of the necessary rights of way for a 4,000-foot replacement section of the pipeline. Air quality impacts are discussed below for both the construction of the 4,000-foot pipeline replacement section and for operation of the pipeline project.

a) The proposed action would not conflict with or obstruct the implementation of air quality plans in the BAAQMD, since all air pollution emission sources would be operated within permitted limits. The BAAQMD is revising their Air Quality Attainment Plan (AQAP) for the region and will submit the Plan to EPA Region 9 sometime in 2001. In the revised AQAP, permitted emission sources for this project are already included. Therefore the project will not be in conflict with the AQAP. Although the oil heaters at the Hercules Pump Station have used mostly natural gas as fuel in the past, they may use more fuel oil in the future. The existing air permits allow unlimited use of either natural gas or fuel oil, and fuel oil has been used before during certain times. Therefore, switching back to fuel oil will result in a less than significant impact.

b) During construction of the 4,000-foot Martinez replacement section of the pipeline, there would be a temporary increase in the following criteria pollutant emissions:

- PM-10 fugitive dust emissions during clearing, boring, and trenching operations
- Exhaust emissions from construction equipment, including the criteria pollutants carbon monoxide, sulfur dioxide, nitrogen oxides and PM-10

Fugitive dust emissions from construction activities would cause increases in ambient air particulate matter concentrations at receptors near the pipeline corridor. Construction dust is composed primarily of large particles that settle out of the atmosphere with increasing distance from the source. In general, construction dust would result in more of a nuisance than a health hazard. About one-third of the dust generated by construction activities consists of smaller size particles (PM-10) in the range that can be inhaled by humans, although these particles are generally inert. Persons with respiratory diseases who may be immediately downwind of the construction activities could be sensitive to this dust. Therefore, the short-term PM-10 air quality impacts from fugitive dust during construction would be significant unless mitigation measures prescribed by BAAQMD are implemented.

Although exhaust emissions from construction vehicles are much lower than fugitive dust emissions, some of them (NOx and VOCs) contribute to the formation of ozone, a

nonattainment pollutant, and fine particulate matter from exhaust emissions would contribute to ambient air PM-10 levels. Thus, short-term ozone impacts would be significant, and PM-10 impacts would be significant at locations near the construction site unless mitigation measures are adopted to reduce exhaust emissions.

Impact III.1: Emissions from construction-related activities would cause a temporary increase in local particulate matter concentrations.

Mitigation Measure III.1: SPBPC shall implement the following fugitive dust control and emissions reduction measures during construction of the 4,000-foot pipeline replacement. These measures are prescribed by BAAQMD to ensure that construction impacts are less than significant, and they include:

- **Construction areas, unpaved access roads, and staging areas shall be watered at least twice daily during dry weather, or soil stabilizers shall be applied during active work.**
- **Trucks hauling soil and other loose material shall either be covered, have at least two feet of freeboard, or be sprayed with water prior to arriving and departing from the construction site.**
- **Construction vehicles shall use paved roads to access the construction site wherever possible.**
- **Vehicle speeds shall be limited to 15 mph on unpaved roads and construction areas, or as required to control dust.**
- **Paved access roads, parking areas, and staging areas at construction sites and streets shall be cleaned daily with water sweepers if excessive soil material is carried onto adjacent public streets.**
- **A carpooling strategy shall be implemented for construction workers prior to commencing construction (during construction worker orientation and training).**
- **Vehicles used in construction activities shall be tuned per the manufacturer's recommended maintenance schedule.**
- **Vehicle idling time shall be minimized whenever possible.**
- **The CPUC mitigation monitor shall monitor compliance with these measures during construction.**

Significance after mitigation: Less than significant.

c) Operation of the project would not result in a significant cumulatively considerable increase of any criteria pollutant emission for which the region is in nonattainment.

During operations, NOx emissions, which are the principal contributors to ozone, would be within permitted levels and would not result in measurable increases in ozone levels. However, during construction of the 4,000-foot replacement section, NOx and PM-10 emissions would be cumulatively significant.

Impact III. 2: Emissions from construction-related activities would cause a temporary cumulatively significant increase in local NOx and PM-10 emissions.

Mitigation Measure: Implement Mitigation Measure III.1

Significance after mitigation: Less than significant.

d) The project would not expose sensitive receptors to substantial pollutant concentrations. Even though there may be a slight increase in emissions over previous operations if fuel oil is used in the heaters instead of natural gas, the increase would be within allowed levels under the existing air permits. Since the heaters have operated previously for short periods of time with fuel oil, there would be no significant short-term impacts at sensitive receptors, which are near the pump station. There would be a slight increase in emissions at the pump station heaters over the long-term because of greater hours of fuel oil usage versus natural gas. The slight increase in long-term emissions would result in less than significant impacts at sensitive receptors near the pump station.

e) The project would not create odors affecting a substantial number of people. There are no odor complaints with regard to the existing facility, and operations in the future are not expected to result in increases of odorous pollutant emissions.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

SETTING

PUMP STATION SETTING

The site of the 44-acre Hercules Pump Station is relatively remote, though in a generally highly developed area. Its immediate surroundings include an Interstate highway right-of-way, grazed pastureland, and low-density commercial and industrial development. The Hercules Pump Station includes several buildings and large storage tanks, roadways and parking, and a considerable area of open space with mostly non-native grasses and trees. Part of the open lands includes a large grassed hill, artificially constructed to shield the tanks from potential visual impacts. Two small retention ponds are located on the property. The property abuts a small stream adjacent to Interstate Highway 80.

The Pump Station is completely fenced with very limited human access only to station personnel. Open lands on the property offer habitat for a variety of semi-urban wildlife. The grasslands and trees provide hunting opportunities for raptors likely found in the area. The forage provided by the large open pasturelands adjacent to the property probably attracts raptors to the area. A site visit by ESA staff in February 2001 revealed evidence of raptor use of the area. Several airborne raptors, probably red-tailed hawks, were observed overhead. A large nest, potentially belonging to a raptor, was observed on one of the large storage tanks on the property. The widely spaced trees within the property's grasslands provide ideal raptor foraging opportunities. The relatively unused grasslands probably provide an abundance of small mammals as valuable raptor prey.

The retention ponds and adjacent stream provide some limited riparian and wetland habitat. The retention ponds have developed some wetland vegetation, but water retention is of short duration and there is no other aquatic value to these ponds. The stream seems to be perennial and has good riparian habitat. Upon leaving the property, however, this stream is artificially channelized through developed property and offers little or no aquatic habitat to wildlife.

PIPELINE CORRIDOR SETTING

The pipeline corridor generally follows along the shorelines of San Pablo Bay, Carquinez Straits, and Suisun Bay. Land adjacent to this easement is primarily open parkland, residential, commercial, and industrial. The biological environment adjacent to the 35-mile long pipeline corridor can be characterized in three segments:

- The approximately 15-mile long portion from Richmond to Crockett is within highly developed commercial and industrial land uses between Interstate Highway 80 and San Pablo Bay. This portion includes the Pump Station in Hercules. The lands surrounding this portion of the pipeline offer little or no value to biological resources. There is little undeveloped habitat along this corridor with the exception of the Pump Station itself described above.

- An approximately 10-mile long portion from Crockett to Martinez passes through largely inaccessible, undeveloped shoreline. This portion follows the railway easement along Carquinez Strait. Above the shoreline are relatively steep grassed slopes up into hilly, open pasture and parklands. Much of this area is within the Carquinez Strait Shoreline Park, part of the East Bay Regional Park. This land is largely undeveloped grassland, interspersed with native trees characteristic of undeveloped areas of the hills surrounding the San Francisco Bay area. Most of these lands are devoted to parkland activities or are grazed with cattle. These lands provide substantial value for biological resources including several special status plant and animal species. This area is valuable habitat for special status raptors including Swainson's hawk, bald eagle, and northern harrier. Carquinez Strait, which the pipeline corridor parallels in this area, is an important aquatic resource for a variety of species. As the passage for the Central Valley drainage, 40% of all precipitation in the State of California passes through this channel. Several special status migratory fishes, including steelhead and chinook salmon, use this corridor for passage to and from spawning areas in the Central Valley rivers and streams.

- An approximately 10-mile long section from Martinez, eastward to Pittsburg continues through low-lying lands adjacent to Suisun Bay. Most of this corridor is located in wetlands. The pipeline replacement section, described in greater detail below, occurs at the beginning of this section. A description of the habitat for the replacement section, given below, also characterizes the general setting of this pipeline section.

PIPELINE REPLACEMENT SETTING

The 4,000-foot pipeline realignment within the City of Martinez would require installation of a new pipeline along the perimeter of a portion of the Martinez Shoreline Park. This site is where Alhambra Creek enters the Bay. The Park at this location encompasses the confluence of Alhambra Creek with Suisun Bay. Marsh restoration activities within this park, including areas within the proposed pipeline realignment corridor, are planned for 2001 and 2002 (personal communication, Jim Townsend, East Bay Regional Parks District).

Alhambra Creek is tidally influenced at this site, and the adjacent land to the ordinary high water mark is defined as federally protected wetland habitat. There is, however, very little wetland vegetation along Alhambra Creek at this location. A few sparse growths of cattails and sedges were observed along the riparian zone of the Creek just below the pipeline crossing. The marsh restoration activities noted above, however, will include vegetation establishment within the proposed pipeline corridor. If this vegetation were established prior to the pipeline installation, newly established habitat would exist where currently the habitat is degraded and sparsely vegetated.

Further downstream, as Alhambra Creek passes through the Park, it widens and becomes more marshlike. Upstream of the project site, the creek passes through downtown Martinez and is highly channelized with vertical stone and concrete banks.

Alhambra Creek and these adjacent wetlands provide habitat for several special status species. This habitat is protected by several federal and state laws and regulations noted above, as well as the conservation policies associated with the Park. Numerous rare or endangered plant species are potentially found at this site. A botanical survey would likely be required by wetland regulations before work in the area (e.g., Section 404 of CWA). Special status wildlife potentially occurring at this location include the following:

- At least eight species of ESA-listed resident and migratory fishes might use waters adjacent to the site. These include steelhead, Chinook salmon, Delta smelt, Splittail, longfin smelt, Pacific lamprey, river lamprey, and green sturgeon. It is unlikely that any of these species spawn upstream of or at the site, but their juvenile forms might be found at the site.

- Special status mammals that might be found in the habitat near this site include salt marsh harvest mouse and Suisun ornate shrew. Although no habitat for either is found directly within the pipeline corridor, there may be habitat in the adjacent Park marshlands.

- Several special status birds, including short-eared owl, northern harrier, California black rail, California clapper rail, and Suisun song sparrow might be found in nearby open wetlands.

- The northwestern pond turtle and California red-legged frog could be found in Alhambra Creek at this location.

Each of these species has sensitive life stages such as nesting, spawning, and rearing that are susceptible to disturbances that might result in an adverse impact. Many environmental laws and local and State policies protect these species.

Although, in general, the site may support habitat for any of the above sensitive and valuable biological resources, the narrow pipeline realignment corridor is on the edge of this habitat – separating it from industrial and transportation land uses. This corridor is also mostly previously disturbed land, sparsely vegetated along the creek, and occurs mostly in non-native ornamental vegetation for the rest of the realignment area. As such, the value of the corridor habitat for the above species is low because it is unlikely they would use this area immediately adjacent to automobile roadways and parking, industrial buildings, and other developed property.

REGULATORY SETTING

State and federal laws and regulations related to Biological Resources for the above-described Pipeline Project include the following:

- The Federal Endangered Species Act (ESA) protects plant or animal species designated by the USFWS or NMFS as either endangered, threatened, or special concern. The current list of designated species protected by the ESA includes several species found in the area as noted above. Projects that may affect listed species area required to consult with the appropriate agency regarding potential adverse impacts and mitigation development. Several species in the area where actions associated with the Pipeline Transfer may cause effects to biological resources are listed with the ESA. Portions of the project might affect some of these species and would require consultation with USFWS and NMFS in accordance with the ESA.

- The California Endangered Species Act (CESA) protects plant or animal species designated by the Fish and Game Commission as either endangered, threatened, or of special concern. The current list of designated species protected by CESA includes several species found in the area as noted above. Projects that may affect listed species area required to consult with the CDFG regarding potential adverse impacts and mitigation development. Several species found in and around the Project Lands are covered by CESA. Actions that might affect any of these species would require consultation with the CDFG.

- California Fish and Game Code Sections 1602 and 1603, also known as a Streambed Alteration Agreement, is administered by CDFG. This law requires any work within an area with a defined streambed obtain a permit from CDFG. These permits generally protect the

stream environment from unnecessary adverse impacts. Special consideration is given to potential impacts to special status species.

- The federal Coastal Zone Management Act protects all U.S. coastal areas from impacts. In the Project area, the San Francisco Bay Conservation and Development Commission (BCDC) has jurisdiction over all areas of San Francisco Bay subject to tidal action, and a shoreline band extending 100 feet inland. Installation of the new pipeline segment in Martinez along the tidally influenced Alhambra Creek will require a BCDC permit.

- The California Native Plant Protection Act directs the CDFG to preserve, protect, and enhance endangered plants in the state. CDFG designates native plants as endangered or rare, and requires permits for collecting, transporting, or selling such plants. This law parallels CESA protection for endangered and threatened plant protection, and adds protection for plants that are also "rare." A survey for plants protected by this Act may be required before portions of the action is implemented.

- The Clean Water Act, Section 401 is administered, in the project area, by the San Francisco Bay Regional Water Quality Control Board (RWQCB – Region 2). This Section requires a National Pollution Discharge Elimination System (NPDES) permit for any effluent discharge into San Pablo Bay, Carquinez Strait, and Suisun Bay. Proposed pipeline realignment in Martinez might require a NPDES permit if any material, such as drilling muds, might be discharged into the Alhambra Creek as part of the installation.

- The Clean Water Act, Section 404, (CWA) is administered by the US Army Corps of Engineers (COE) and is intended primarily to protect water resources. This act provides extensive protection to wetlands for both hydrologic and ecological functions. The portion of the pipeline route that would require relocation, with a stream crossing and new pipeline installation at Martinez, may require a permit from the COE in accordance with this regulation because the pipeline replacement may fill wetlands adjacent to Alhambra Creek. Application of the CWA requires, like other federal laws, that a project requiring CWA approval must also comply with all other relevant State and federal laws and regulations.

- The Migratory Bird Treaty Act regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 CFR 10.13. This Act applies to birds that migrate through more than one country and is enforced by the USFWS. The Act was amended in 1972 to specify protection for migratory birds of prey (raptors). Raptors found at the pumping station and along the pipeline route would be protected by this Act.

BIOLOGICAL RESOURCE IMPACT DISCUSSION

a) Pump Station continued operation would have less than significant impacts. Noise and human activities associated with the resumption of oil movements through the pump station could likely disturb and perhaps cause abandonment of the site by raptors that may nest and use the site for foraging and for perch sites. Raptors are protected by laws

and regulations administered by USFWS and CDFG. Although it is unlikely that affected raptors would be listed with the ESA, they would be included in the Migratory Bird Treaty discussed above. The extent of potential affect would not be substantial. Oil movement activities will not displace habitat, but noise and human presence may prevent raptor nesting at, or hunting from, the site. The disturbance associated with oil movements would probably affect less than a few individual birds and continued operation will allow the facility site to provide raptor habitat.

Pipeline Corridor continued operation would have no impact. Although significant resources lie adjacent to this route, use of the pipeline would not cause any habitat alteration nor disturb any wildlife that may use the corridor. Access to the pipeline, if required, would use the railway easement and it would not be necessary to affect natural habitat to perform routine pipeline maintenance. Any substantial habitat disturbance outside the railway easement would likely require compliance with regulatory agencies as necessary (e.g., the East Bay Regional Parks District in the Park, or the Army Corps of Engineers if wetlands).

Pipeline Replacement in Martinez could potentially have a significant impact to listed species. The action could affect several special status species as noted above that might use the site. These species are protected by laws and regulations administered by CDFG and USFWS and NMFS, including the federal and state ESA. Several of these species could be affected through habitat alteration or by direct displacement along the reconstruction corridor.

Although the likelihood of impacts to species or habitat exists, the extent of the effect would likely not be substantial. The corridor is immediately adjacent to an existing railroad bridge, an industrial building, and other transportation facilities (e.g., roads, railway, and parking lots). The value of the area that would be disturbed by pipeline installation for wildlife is not high because of the presence of these facilities. The corridor has very little native vegetation and provide poor habitat in its current condition. Nevertheless, some listed species may be found at the project area; without a complete biological survey of the areas potentially affected by construction activities, the potential to impact listed species is not fully known. Mitigation measures, such as avoidance of work during critical life stages of potentially affected species, replacement of valuable vegetation for habitat, or soil erosion and sediment transport avoidance, are commonly used and approved by resource agencies to reduce potential adverse affects to less than significant levels for species that might be affected at this site.

Impact IV.1: Pipeline replacement in Martinez may significantly impact special status animal species protected by State and Federal ESA. Several species could be impacted by habitat alteration or direct displacement along the pipeline replacement corridor.

Mitigation Measure IV.1: Prior to commencing construction activities, SPBPC shall conduct a biological survey of all areas that would be affected by construction of the replacement section in Martinez and submit the survey for review and approval by the CPUC mitigation monitor. The survey shall include a biological assessment of the potential of construction activities to create an adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. If the survey reveals that such a potential exists, SPBPC shall conduct a formal consulting process with the appropriate resources agencies to address the potential to create a significant impact to listed species.

Based on this consultation process, SPBPC shall implement measures deemed necessary by these agencies to reduce potential impacts to a less than significant level. SPBPC shall inform the CPUC mitigation monitor of the results of the coordination and details of such measures to be implemented. The CPUC mitigation monitor shall monitor compliance with such measures.

Measures that might be required could include those such as the following proposed by PG&E in the Proponents Environmental Assessment:

General

- **Environmental training covering protection of biological resources in the 4,000-foot replacement section area shall be given to appropriate project personnel prior to construction.**
- **Erosion control measures and Best Management Practices shall be installed adjacent to Alhambra Creek, the unnamed drainage, and any associated wetlands to prevent sediment from entering the drainages.**

Botanical Resources

- **A revegetation plan shall be prepared if native vegetation would be removed.**
- **Previously vegetated areas that would be cleared during construction activities shall be revegetated with appropriate species, as required.**
- **Flagging and/or fencing shall be installed around adjacent riparian habitat to prevent incidental impacts to the area.**
- **If any native vegetation were removed at the replacement section, the affected area shall be revegetated with an appropriate native seed mix.**

Wildlife Resources

- **Prior to construction, surveys shall be performed for the California red-legged frog to determine presence or absence.**
- **If the California red-legged frog is determined to be present onsite, construction would not commence in this area until the U.S. Fish and Wildlife Service and California Department of Fish and Game were notified, and appropriate measures were developed to minimize disturbance to this species.**
- **Construction shall be timed to avoid the nesting period for raptors.**
- **If construction is scheduled to occur during the nesting season of raptors, preconstruction surveys shall be conducted to identify and avoid active raptor nests.**
- **Construction within one-half mile of an active raptor nest would not begin until the young had fledged from the nest.**
- **Bentonite released into drainages during construction shall be immediately cleaned up.**

Habitat temporarily disturbed as a result of construction shall be restored.

Significance after mitigation: Less than significant.

This example addresses only one potentially affected special status species (the California red-legged frog), whereas, the mitigation requirement would address potential effects to all special status species such as those described in the Environmental Setting. Implementation of Mitigation Measure IV.1 would reduce the project's potential to create a significant impact to listed species to a less than significant level.

b) Pumping Station continued operation would have no impact. There are no riparian communities adjacent to and within the Pumping Station facility. The two retention ponds and the small stream have riparian habitat. Re-operation of the plant would not affect these habitats. The ponds would function as they do now and no actions would occur at the Station that would affect the small stream along the edge of the property.

Pipeline Corridor continued operation would have no impact. The pipeline does pass through substantial riparian and other natural communities. Operation of the pipeline, however, will not alter or in any other way affect this habitat. Access to the pipeline for routine maintenance would occur on railway easement and not disturb natural habitat.

Pipeline Replacement in Martinez would have a less than significant impact. The proposed pipeline relocation in Martinez would impact a 4,000-foot long corridor that

includes riparian and other sensitive natural habitat identified by CDFG and USFWS. The new pipeline would cross two streams. The new pipeline would require displacement of riparian habitat along Alhambra Creek; this area is potential habitat for several special status species as noted above. Effects on these resources are likely from construction of a new buried pipeline.

Although protected habitat would be affected, the impact is less than significant because the extent and quality of the protected habitat are not of substantial value. The quality is not substantial because there is very little native riparian vegetation in the zone of disturbance, and the corridor lies adjacent to developed properties that lower the value of the corridor habitat for sensitive or special status wildlife. That is, although the site may technically provide habitat for special-status species found in the area, this habitat is of poor project quality because it is adjacent to buildings, a bridge, and a railroad track; and, the area has been recently disturbed and has not re-established natural vegetation within the area of potential pipeline construction. Therefore, it is quite unlikely that the habitat would support special status species. Furthermore, habitat effects would be of short duration. Following pipeline installation the corridor would be re-vegetated and returned to a simulated natural condition after pipeline installation. Construction activities would be limited to upland areas except where necessary, and offsite affects would be avoided.

c) Pumping Station continued operation would have no impact. There are three federally protected wetlands on the Pumping Station site as noted above the two retention ponds and a small stream along the property. Continued operation of the facility would not alter the hydrology or otherwise affect these wetlands or the stream. The retention ponds will continue to function as they currently do – operation of the Station will not affect runoff from the site. There are no actions associated with the Station that affect the small stream adjacent to the property.

Pipeline Corridor continued operation would have no impact. Although the pipeline corridor passes through substantial areas of federally protected wetlands, its operation would not alter the wetland because it would not require removal, filling, or hydrological interruption, or other actions affecting those wetlands.

Pipeline Replacement in Martinez could affect wetlands. Installation of the new pipeline would require direct removal and filling of federally protected wetlands located along the Alhambra Creek embankment as noted above. The extent of the effect would likely not be substantial because little area would be affected and the habitat would be easily restored to its current sparsely vegetated condition.

d) Pumping Station noise and human activities associated with oil movements through the pump station would have a less than significant impact. Additional activity at the facility may impede the use of the area for raptor nesting. As noted above, the site may offer raptor nesting and foraging habitat. Noise and human presence associated with facility operation would likely adversely affect any nesting raptors on the site. The extent of the

effect would not be substantial. Few individual raptors would be affected and these would not likely be species listed as endangered or threatened.

Pipeline Corridor continued operation would have no impact. Although the pipeline corridor passes through substantial habitat for migration and nursery of wildlife species, its operation would not affect these resources. Pipeline operation would not displace or interfere with the use of the habitat through which it traverses. Access to the pipeline for routine maintenance would use the railway right of way and not disturb wildlife habitat.

Pipeline Replacement in Martinez would have a less than significant impact. The construction of a new pipeline would occur within habitat used for migration and nursery of native and migratory species noted above. It is unlikely that direct use of the habitat affected by the project is substantial by any wildlife species. Although the pipeline corridor lies adjacent to valuable migratory and nursery habitat, the area affected by pipeline installation has little nursery habitat value. Pipeline installation would not affect potential movement of fishes or other aquatic organisms in Alhambra Creek because the pipeline would be installed beneath the streambed and installation methods would avoid significant sedimentation of Alhambra Creek or other indirect effects. Installation of the pipeline would not affect passage of upland wildlife because there is no nursery habitat within the corridor and the pipeline route is adjacent to roadways, railroad tracks, and industrial development, to which wildlife would not require access.

e) Pumping Station continued operation would have no impact. The Pump Station is not within any areas with policies or ordinances protecting biological resources.

Pipeline Corridor continued operation would have no impact. The pipeline corridor passes through substantial areas protecting biological resources as noted above. Operation of the pipeline would not conflict with any of the provisions of those policies because pipeline operation would have no effect on biological resources.

Pipeline Replacement in Martinez may have an impact that is potentially significant unless mitigation incorporation avoids potential conflicts affecting biological resources. Installation of the new pipeline would require some work adjacent to, and beneath, Alhambra Creek. This work would potentially conflict with marsh restoration activities planned for this area within the Martinez Shoreline Park.

Impact IV.2: Pipeline replacement in Martinez may include impacts that conflict with marsh restoration activities planned at the potential construction site, and adjacent marshlands within Martinez Shoreline Park, by East Bay Regional Parks District.

Mitigation Measure IV.2: Prior to commencing construction activities, SPBPC shall contact East Bay Regional Parks District (EBRPD), the sponsor of marsh restoration activities at the Martinez Shoreline Park, to reach agreement on how to

coordinate marsh restoration and pipeline installation plans: SPBPC shall avoid or minimize potential conflicts of pipeline replacement activities with marsh restoration plans at the site. Measures to avoid conflicts, such as timing of work, agreements on revegetation or replacement of habitat, would be included in this agreement. The agreement between SPBPC and the EBRPD shall be formalized in writing and submitted to the CPUC staff for review and approval by the CPUC mitigation monitor prior to commencing construction activities that may affect marsh restoration activities.

Significance after mitigation: Less than significant.

f) Pumping Station oil movements would have no impact. The Pump Station is not within any areas with local, regional, or state habitat conservation plans.

Pipeline Corridor continued operation would have no impact. The pipeline corridor passes through substantial areas with local, regional and state conservation plans. Operation of the pipeline would not conflict with the provisions of those plans because it would not affect natural resources protected by those plans.

Though no official Habitat Conservation Plan would be affected, Pipeline Replacement in Martinez may have an impact that is potentially significant unless mitigation incorporation avoids conflict with local approved habitat conservation plans. Construction of the new pipeline would occur adjacent to, and within the Martinez Shoreline Park, which has marsh restoration activities planned within the pipeline corridor. Construction activities associated with pipeline installation may conflict with those plans without coordination and adoption of measures to minimize or avoid effects to marsh restoration activities or results. Of greatest concern would be timing of the project to avoid disruption of the marsh restoration activities.

Impact IV.3: Pipeline replacement in Martinez may conflict with habitat conservation plans administered by the East Bay Regional Parks District for the Martinez Shoreline Park adjacent to the proposed construction corridor.

Mitigation Measure IV.3: Implement Mitigation Measure IV.2.

Significance after mitigation: Less than significant.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
V. CULTURAL RESOURCES— Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

SETTING

Numerous studies have shown that there is significant archaeological evidence that Contra Costa County has been inhabited for at least the last 5,000 years. Three Native American groups have been identified as inhabiting the area prior to initial European contact, including the Costanoans, Bay Miwoks, and the Northern Valley Yokuts. At the time of European contact, each tribe occupied the western, eastern, and southern portions of the county, respectively. Prehistoric remains are abundant with over 600 archaeological sites countywide having been recorded with the Archaeological Inventory (Pacific Gas and Electric, 2000). The pipeline alignment and associated structures travels through coastlines, wetlands, and stream courses, all of which are generally the most likely areas to contain archaeological sites. The most likely sites anticipated to reside within the pipeline route would consist of shell mounds or middens, sweat houses, cultural utensils, and hunting equipment (Pacific Gas and Electric, 2000).

A majority of the pipeline alignment traverses through urbanized areas, which have been previously disturbed by the construction of railroad tracks, spurs, underground pipelines, and a variety of other urban-related construction activities, such as grading, filling, etc. Previous construction of the existing railroad and utility lines presumably disturbed many prehistoric sites, since these sites are often located near major travel routes, such as the Union Pacific Railroad corridor.

ARCHAEOLOGICAL RESOURCES

Site records and literature searches were performed at the Northwest Information Center (Sonoma State University). These searches included a review of the National Register of Historic Places (NRHP) listings, the State of California Historic Landmarks registers and county and city registers for historic sites. Results of the listed historic and prehistoric archaeological sites are indicated below for the pipeline alignment. Portions of the alignment were previously surveyed

during the pipeline's initial construction. Reconnaissance surveys were conducted in areas where native soils were present, where the built environment did not completely mask the ground surface, and at locations where records indicated were not previously surveyed. Because most of the alignment would be located in along the UPRR grounds visibility during field surveys was frequently severely inhibited.

Native American consultation for this project is an ongoing process. Letters have been sent to the Native American Heritage Commission (NAHC) requesting a search of their Sacred Lands files. Protocols for Native American consultation and involvement will comply with the standard procedures requested by the NAHC and with the recommendations discussed at the February 4, 2000, meeting of NAHC (i.e., continuous consultation with the affected groups and sincere consideration of Native American concerns regarding prehistoric sites and resources). It is assumed that Native Americans will serve as consultants and will be a part of the monitoring team in those areas containing resources that are important to local Native American people. Contact letters have been sent to the Native Americans recommended by NAHC to be contacted for this project.

City of Richmond

Remains from the prehistoric Costanoan culture are found in a number of archaeological sites that tend to be clustered along creeks, marshlands, and bayside coves. Artifacts located along the pipeline route within the city of Richmond include a minor shell midden site that was recorded near San Pablo Creek during pipeline construction. However, due to previous disturbance and lack of additional artifacts, no mitigation was recommended. The pipeline also crosses Wildcat Creek and Rheem Creek, however areas within Richmond that are typically considered archaeologically sensitive tend to be located along San Pablo Bay, west of the pipeline (City of Richmond, 1994).

By 1850, the Richmond area had changed from being a gathering center for prehistoric Native Americans to a European settlement. The oldest historical areas in the city are located in Point Richmond, which is south of the pipeline. Point Richmond began as the westernmost terminus of the Santa Fe Railway Company. Other industries later included oil and brick production, and wine exporting. Six sites are listed in the National Register of Historic Places, none of which are near the existing pipeline alignment.

City of Pinole

Mainly Spanish settlers displaced the Costanoan populations in the City of Pinole by the early 1800s (City of Pinole. 1995). Now the area is largely developed and according to the Contra Costa County General Plan, no sensitive prehistoric resource areas are listed as residing in the area. In addition, no prehistoric sites were reported in this area during original archaeological investigations for the pipeline (Pacific Gas and Electric, 2000). However, the route does follow the shoreline and crosses Pinole Creek, which allows for the possibility of finding subsurface prehistoric deposits if ground-disturbing activities are conducted in the area.

The City of Pinole was established around an early trading facility that was founded by a Portuguese immigrant on the shore of San Pablo Bay, known as the Fernandez Mansion (City of Pinole. 2000). This historic landmark still exists today and is located at the end of Tennent Avenue, which is just south of the pipeline and Union Pacific Railroad.

City of Hercules

Similar to Pinole, the land area encompassing the City of Hercules was inhabited by the Costanoans prior to European contact (City of Hercules. 1998). The pipeline follows the shoreline and crosses Refugio Creek, where prehistoric deposits could potentially reside; however no sites were discovered during the initial construction of the pipeline.

In 1881, the California Powder Works started operation in Hercules, originally producing black powder for dynamite and then other explosive substances during World War II. The historical district known as "Hercules Village" is located just to the south of the pipeline at Railroad Avenue (City of Hercules. 1998).

The Hercules Pump Station is located off San Pablo Avenue in the northeastern section of the City of Hercules. The site is situated on a hilltop on the eastern side of Refugio Valley. Refugio Creek winds through the valley to the west. The station would appear to be a typical location for prehistoric cultural resource sites, but none were reported from surveys and research associated with the initial construction of the pump station (Pacific Gas and Electric, 2000).

City of Martinez

Martinez is located at the base of the rolling hills to the south along the banks of the Carquinez Straits, near the mouth of Alhambra Creek, which once flowed into a ecologically diverse estuary. Native Americans tribes most likely took advantage of the location. An archaeological survey was performed along the northwest end of town near the old town cemetery when the pipeline was initially installed, however, no evidence of any archaeological site was found. It is assumed that there is low potential for Native American sites along the pipeline corridor in this area, due to it being inundated during historical time (City of Martinez. 1995). A few sites have been recorded on the backslopes of the hills to the south.

The city was originally utilized as a trading post in 1849, and by the turn of the century, abundant activity was occurring in the vicinity of the pipeline route, including railroad construction and the development of a fishing and shipping port. John Muir established a home in Martinez, which has been designated a national historic site. Four other sites are listed with the National Register of Historic Places, but none are located within a close proximity to the pipeline alignment (Northwest Information Center, 2000).

4,000-Foot Replacement Section

The immediate vicinity surrounding the 4,000-foot replacement section was examined in more detail, due to the potential for ground disturbing activities during the pipeline's replacement. A

field inventory performed by Basin Research Associates found no evidence of significant historic or prehistoric archaeological resources within the existing pipeline alignment, which has been disturbed by railroad tracks and prior construction activities. The cultural resource investigation did not cover the northern end of the pipeline replacement section, which extends approximately 300 feet north of the study area to the Martinez Regional Shoreline Park. This portion of the replacement section is largely developed with paved roadways and commercial facilities, thereby making it highly unlikely that any intact cultural deposits would be encountered. Native American sites are unlikely north of the railroad tracks because the area was an inundated marshland in prehistoric times. The central portion (Alhambra Avenue to Ferry Street) of the replacement section was previously investigated for the Martinez Intermodal Station project and no cultural resources were identified within the area of potential effect (City of Martinez. 1994).

A record search was performed for this portion of the pipeline. No local, state, or federal historically or architecturally significant structures, landmarks, or points of interest have been identified within or adjacent to the existing pipeline right-of-way (Northwest Information Center, 2000). Two historic resources were reported within 0.25 mile of Grangers' Wharf and the Southern Pacific Railroad Depot, but they are not within a close proximity of the proposed pipeline replacement section (Northwest Information Center, 2000).

City of Pittsburg

The section of pipeline evaluated ends at the western end of the City of Pittsburg, which is recognized as one of the earliest industrial centers in Contra Costa County. Coal, steel, and canning are some of the industries that contributed to the city's early development. A historical district is located at the core of downtown Pittsburg, known as the New York Landing (City of Pittsburg. 1988). The district is located over a half mile east of the pipeline ending point.

UNINCORPORATED AREAS OF CONTRA COSTA COUNTY

Point Pinole Regional Shoreline Park

This area consists of sections of shoreline between Richmond and Pinole. It represents a potential location for prehistoric sites, due to the intact shoreline. An archaeological site located 0.5 mile west of Pinole at the water's edge was investigated during installation of the pipeline (Pacific Gas and Electric, 2000). The location was recently disturbed by machinery and no archaeological materials were discovered.

El Sobrante

Also located between Richmond and Pinole, El Sobrante is listed as particularly sensitive in the Contra Costa County General Plan with known archaeological sites. It is a likely place to find sites, though they may not be visible on the ground surface.

San Pablo Bay Regional Shoreline Park

This shoreline area is located along the southern end of San Pablo Bay within the cities of Pinole and Hercules. The easternmost section is near the Hercules Village historic landmark described above under the City of Hercules. No prehistoric sites were discovered during pipeline installation, and it is not considered to be a particularly sensitive cultural resource area according to the County Archaeological Sensitivity Map (Pacific Gas and Electric, 2000 and Contra Costa County. 1996).

Rodeo/Crockett

The unincorporated towns of Rodeo and Crockett are situated at the mouth of the Carquinez Strait, approximately 3-miles east of Hercules. Two archaeological sites were investigated during initial pipeline installation. One site was located at Lone Tree Point in Rodeo, near the mouth of Rodeo Creek. A remnant of the site was found on the northern side of the railroad tracks, however, no remains were visible on the inland side where the pipeline route is located (Pacific Gas and Electric, 2000). Construction of the railroad and pre-existing utility lines most likely destroyed a portion of the site. The other archaeological site was located in the town of Crockett, east of the Carquinez Bridge. For the most part, this site was buried by the freeway interchange and industrial complex that occupies the area, though a trace of a shell midden was found well outside the pipeline route (Pacific Gas and Electric, 2000).

The only paleontological deposits described as near the pipeline in the original investigations were also located on the shore, south of Lone Tree Point (Pacific Gas and Electric, 2000). These deposits were not disturbed by installation of the pipeline and are considered to be intact. The area along the coast west of Interstate 80, all the way to the Tosco Corporation property is listed in the Contra Costa County General Plan as extremely sensitive, with known archaeological sites (Contra Costa County Planning Department. 1989).

Carquinez Strait Regional Shoreline Park

The Carquinez Strait Regional Shoreline Park encompasses approximately 2,795 acres of bluffs and shoreline between Crockett and the City of Martinez. One prehistoric site record was investigated during the initial pipeline installation, and is located just east of a T-shaped dock approximately one-mile west of Martinez (Pacific Gas and Electric, 2000). This area is described as highly sensitive, with known archaeological sites. No evidence of the site was found, however, it was suspected that the site is actually located somewhat inland along an intermittent stream. The western portion of the park is not considered as sensitive; however, there is a possibility of cultural resources existing in the area, due to the lack of urbanization. At the northwestern edge of the Shoreline Park lie remnants of former brickworks, a grain wharf, and a resort, which all date back to the turn of the century (Contra Costa County, 1996).

Port Costa

The existing pipeline alignment traverses the shoreline through this unincorporated town and county lands to the east. No sites were mentioned in the original pipeline cultural resource investigation, but it is considered as a highly sensitive area with known archaeological sites documented in the Contra Costa County General Plan. Port Costa is one of the oldest towns in Contra Costa County and in the mid-1850s it was the largest port in the world for the export of farm goods.

Avon

This area is largely urbanized, and includes an operating oil refinery and chemical production plant. The pipeline alignment crosses through Pacheco Creek/Slough and other altered waterbodies, however, this area is not considered a sensitive area, as development most likely has disturbed any archaeological sites.

Port Chicago/Nichols

The pipeline passes through the U.S. Naval Weapons Station (Port Chicago), approximately a half-mile inland from the shoreline. No sites were observed along the pipeline route during its initial installation. Military bases often have land that has remained undeveloped, therefore this area could potentially contain sites associated with the various waterways and wetlands in the area.

Bay Point

Bay Point is located to the east of the U.S. Naval Weapons Station. A majority of the area in which the pipeline passes through was noted as sensitive for prehistoric cultural resources in the City of Pittsburg General Plan. Considering the industrial history of Pittsburg, there is a high possibility of finding historical resources somewhere in the vicinity of the pipeline, however, the pipeline travels through mainly marshland up to the Pittsburg Power Plant. One historic site is situated near the north end of Broadway Avenue. Because there was no mention of it in the original investigations for the pipeline, there is a high probability that it is outside of the pipeline's area of environmental effect (Pacific Gas and Electric, 2000).

PALEONTOLOGICAL RESOURCES

Paleontologists consider all vertebrate fossils to be of significance. Fossils of other types are considered significant as well if they represent a new record, new species, an oldest occurring species, the most complete specimen of its kind, a rare species worldwide, or a species helpful in the dating of formations. However, even a previously designated low potential site may yield significant fossils. The Contra Costa County Planning Department has prepared a general sensitivity map for the County and that mapping was used for the current study.

Paleontological information was obtained from available geologic maps, a review of previous environmental studies, and examination of records at Sonoma State University. Other resources considered in the determination of paleontologic potential are regional geologic reports, and site-specific field surveys. Geologic maps (available through the U.S. Geological Survey [USGS] or California Division of Mines and Geology [CDMG]) show the surface expression of geologic formations along with other geologic features such as faults, folds, and landslides.

Geologic formations in which fossils are found range in thickness from a few feet to hundreds of thousands of feet. Even though a geologic formation may be known to contain fossils, the fossils are not usually distributed uniformly. If the fossils were part of a bay environment, for example, a scattered layer of shells may be preserved over large areas. If, on the other hand, a whale died in this bay, fossilized whalebones might only be found in one small area of less than a few hundred square feet. In addition, fossil-bearing formations are frequently discontinuous. Although sedimentary formations are initially deposited one atop the other, much like a layer cake, over time the layers are squeezed, tilted, folded, cut by faults and vertically and horizontally displaced, so that today, any one rock unit does not usually extend in a simple horizontal layer. In addition, because paleontological resources usually are deeply buried, their presence in an area is difficult to predict from surface inventories and existing geological maps. Even in cases where a fossil-bearing formation is found in a surface outcrop, the fossil-bearing unit may occur at the surface for only a short distance and from this evidence its depth or lateral extent would be difficult to predict. The following types of paleontological resources are known to exist in California:

- True Fossils. Lithified or replaced remains of plants and animals preserved in a rock matrix (e.g., microfossils, shells, animal bones and skeletons, and whole tree trunks);

- Trace Fossils. Molds, casts, tracks, trails and burrow impressions made in soft clays and muds which subsequently were turned to stone, preserving the images of past life (e.g., shells, footprints, leaf prints, and worm tubes);

- Breas. Seeps of natural petroleum that trapped extinct animals and preserved and fossilized their remains.

The only potential for the project to disturb paleontological resources is during construction of the replacement section in Martinez. The entire replacement section would be constructed on intertidal bay deposits. As indicated above, these types of geological formations are not conducive to the formation of true fossils, trace fossils, or breas.

REGULATORY SETTING

FEDERAL REGULATORY OVERSIGHT

Federal regulations and policies pertain to those actions that involve federal funding, federal licensing, or federal permitting. Examples may include federal grants or licensing (FERC and

ICC) and federal permits associated with vegetation and wetlands (U.S. Army Corps of Engineers [Corps] Section 404 permits). If it is determined that the 4,000-foot pipeline replacement section will require a Preconstruction Notification to the U.S. Army Corps of Engineers, SPBPC would be required to obtain a Nationwide 12 permit. The need for this permit is not presently clear, as the replacement section may be routed along existing bridges, rather than bored under any wetlands.

Section 106 Review

Section 106 of the National Historic Preservation Act (NHPA), and its amendments effective June 1999, requires that all federal agencies review and evaluate how their actions or undertakings may affect historic properties. Review under Section 106 is designed to ensure that historic properties are considered throughout the various stages of federal project planning and execution. Under Section 106, historic properties are those prehistoric and historic resources that are listed or eligible for listing in the National Register of Historic Places. The review process is administered by the Advisory Council on Historic Preservation and the State Historic Preservation Officer (SHPO). Recent changes to the Section 106 process have somewhat increased the role and authority of the SHPO and reduced the role of the Advisory Council.

For actions specific to the proposed project, the Section 106 process may apply if there is a later requirement for a Corps Section 404 permit for river and stream crossings or other waterways under the Corps' jurisdiction.

STATE REGULATORY OVERSIGHT

With the CPUC as the lead agency, California policies and regulations are the primary source of regulations and guidelines for the project.

State Historical Building Code

In California, the State Historical Building Code (SHBC) provides some degree of flexibility to owners of historic structures towards meeting building code requirements. The SHBC standards and regulations are performance-oriented rather than prescriptive unlike most housing codes which are more prescriptive. Jurisdictions must use the SHBC when dealing with qualified historical buildings, structures, sites, or resources in permitting repairs, alterations and additions necessary for the preservation, rehabilitation, relocation, related reconstruction, change of use, or continued use of a historic property. The State Historical Building Safety Board has adopted the following definition for a qualified historical house or resource:

A qualified historical building or structure is any structure, collection of structures, and their associates sites, deemed of importance to the history, architecture or culture of an area by an appropriate local, state, or Federal governmental jurisdiction. This should include designated structures declared eligible or listed on official national, state, or local historic registers or official inventories such as the National Register of Historic Places, State Historic Landmarks, State

Points of Historical Interest, and officially adopted city or county registers or inventories of historical or architecturally significant sites, places, or landmarks.

Under the provisions of the SHBC, new construction or modifications, such as placing a generating station or other fiber optic facility in a historic building must conform to prevailing codes, although the elements of the existing structure are given the flexibility of reasonable and sensitive alternatives. The alternative building standards and regulations encompassed by the SHBC are intended to facilitate the renovation in a manner that assists in the preservation of original or restored architectural elements and features, encourages energy conservation, provides a cost-effective approach to preservation, and ensures the safety of occupants.

Local Regulatory Oversight

The policies and regulations of the various counties as they apply to historical resources in the project area are limited. Each affected county has policies (ordinances and General Plans) that mimic CEQA and also reflect local policy on the preservation and enhancement of cultural resources.

Contra Costa County General Plan

The Contra Costa County General Plan (1996) addresses policies and procedures to mitigate impacts to prehistoric and historic cultural resources. These policies and procedures were intended to provide direction in the event of the discovery of archaeological resources during development or construction activities. The Contra Costa County General Plan outlines the following policies, which pertain to historic and archaeological resources located within the county:

Policy 9-28 - Areas which have identifiable and important archaeologic or historic significance shall be preserved for such uses, preferably in public ownership.

Policy 9-29 - Buildings or structures that have visual merit and historic value shall be protected.

Policy 9-30 - Development surrounding areas of historic significance shall have compatible and high quality design in order to protect and enhance the historic quality of the area.

Policy 9-31 - Within the Southeast County area, applicants for subdivision or for land use permits to allow non-residential uses shall provide information to the County on the nature and extent of the archaeological resources that exist in the area. The County Planning Agency shall be responsible for determining the balance between the multiple use of the land with the protection of resources (Contra Costa County, 1996).

City of Richmond

The City of Richmond General Plan contains a set of polices within the Conservation Element that provides guidance for the preservation of local historical and archaeological resources. Policies that would be applicable to the Proposed Project include:

Policy OSC-E.1 - Require archaeology reconnaissance surveys for all projects within an archaeological sensitivity area. When cultural resources are located, measures to deal with the historic resource shall be recommended by a qualified archaeologist (Archaeological Sensitivity areas are identified on the Archaeology map prepared by the California Archaeological consultant, 1981, and is on file in the Planning Department).

Policy OSC-E.2 - Protect notable historic, archaeological, and cultural sites from destruction (City of Richmond, 1994).

City of Hercules

The City of Hercules General Plan contains a set of polices related to the preservation of local historical and archaeological resources. Policies that would be applicable to the Proposed Project include:

Policy 12a - Prehistoric Resources shall be identified and preserved to the extent feasible. If previously unknown subsurface cultural resources are discovered during excavation activities on identified parcels or elsewhere in the study area, excavation would be temporally halted and an archaeologist consulted as to the importance of the resources. Should the archaeologist determine that the resources are important, the project sponsor would follow the procedures described in Program 12a.2, outlined in the Parks and Open Space Element of the General Plan (City of Hercules. 1998).

The City of Hercules Zoning Ordinance identifies an Historic Town District, which contains specific design standards for the district, however, after further evaluation, it has been determined that the pipeline alignment does not pass through this district.

East Bay Regional Park District

Shoreline Regional Park is within the East Bay Regional Park District. Ordinance 38 provides the regulatory framework used by the Regional Park District to govern park uses within each of the parks under its jurisdiction. Chapter VIII of Ordinance 38 outlines policies for the protection of Important Park Features. Section 806 of Chapter VIII pertains specifically to Archaeological Features within park boundaries. Section 806 specifically states that: “No person shall damage, injure, collect or remove any object of paleontological, archaeological or historical interest or value located on District parklands. In addition, any person who willfully alters, damages, or defaces any object of archaeological or historical interest or value or enters a fenced and posted archaeological or historical site shall be arrested or issued a citation pursuant to Penal Code Section 622-1/2.”

City of Martinez

Chapter 22.47 of Title 22 of the City of Martinez Zoning Code pertains to the preservation of structures and districts, which significantly contribute to the cultural and architectural heritage of the City. The ordinance bestows the Martinez Planning Commission with the responsibility of preserving the architectural heritage of the City of Martinez. It gives the Commission the authority to conduct surveys of structures, maintain a register of cultural and historic resources, and adopt guidelines for the designation of such resources. The ordinance requires the Commission to adopt prescriptive standards to be used in reviewing applications for permits to alter, remove, or destroy historic or cultural resources, or contributing structure to a historic district. From available maps, the project alignment does not intersect with any local historic district and as indicated in the Basin and Associates Report, no historic structures reside within project alignment. Consequently, Chapter 22.47 of the City of Martinez Zoning Code would not apply to this project.

CULTURAL RESOURCE IMPACT DISCUSSION

The greatest impact to cultural resources and, more specifically, to archaeological and paleontological resources in the ground, would occur as a result of construction-related activities from trenching operations involved with the installation of pipeline along 4,000-foot replacement section in the city of Martinez and other ground-disturbing activities. Excavation into a significant resource could compromise the significance of an historic or archaeological site, disturb the integrity and context, unearth human remains, impair the scientific value of the resource, or otherwise damage non-renewable resources. However, ground-disturbing activities associated with placement of the pipeline would be linear and relatively narrow. As a result, only a narrow section of the alignment, approximately 10 to 20 feet, would be exposed to trenching activities.

The original cultural resource investigation conducted for the pipeline in 1974 concluded, “no archaeological values of significance would be affected by the proposed pipeline.” Ground disturbance, however, can uncover buried sites that were not visible during the original investigation.

a) The definition of “historical resource” includes archaeological resources listed in or formally determined eligible for listing in the California Register and, by reference, the National Register of Historic Places, California Historical Landmarks, Points of Historical Interest, and local registers (Sections 5020.1(j) and 5024.1 of the Public Resources Code). Two historic land grants were found within the vicinity of the pipeline alignment, the Rancho Las Juntas east of the Arroyo Del Hambre and the Rancho Canada Del Hambrey Las Bolsas to the west of the 4000-foot replacement section. The record research gave no indication of historical archaeological sites or historic structures in the project area dating back to these occupants.

Historic maps dating 1870 to 1883 indicate that areas to the east and west of the Martinez Intermodal Station are considered to be highly sensitive for both surface and buried historic cultural resources based on the abundance of activity historically, including construction of the railroad, nearby Grangers' Wharf, and land reclamation. However, most of the pipeline construction would be within areas previously disturbed by construction of the railroad and paved roads. The archaeological field inventory conducted by Basin Research Associates concluded that no evidence of prehistoric or historically significant archaeological resources was observed within the disturbed railroad rights-of-way and paved roadways adjacent to the railroad (Basin Research Associates, 2000).

As currently proposed, no standing historical resources (buildings or structures) will be directly affected by the proposed project.

Impact V.1: Potentially undiscovered surface or subsurface historical resources could be damaged and/or destroyed by trenching activities proposed as part of the pipeline replacement. Therefore, the project could cause substantial adverse changes to the significance of historical resources. This is recognized as a potentially significant impact. However, this impact could be reduced to a less-than-significant with the incorporation of the following mitigation measures:

Mitigation Measure V.1a: SPBPC shall appoint a cultural resources specialist, or specialists, at least 15 days prior to the start of project-related vegetation clearance ground disturbance and grading, site or project mobilization, site preparation or excavation activities, implementation of erosion control measures, or movement or parking of heavy equipment or other vehicles onto or over unpaved or natural areas. SPBPC shall provide the CPUC mitigation monitor with the name(s) and statement of qualifications of its designated cultural resources specialist(s) who will be responsible for implementation of all project-related cultural resources mitigation measures. The statement of qualifications must be sufficient to substantiate that the specialist(s) meets the Secretary of the Interior's proposed Historic Preservation Qualification Standards as published in the Federal Register (United States Department of the Interior 1997).

> **At least 10 days prior to the start of any project-related activity defined above, SPBPC shall confirm in writing to the CPUC mitigation monitor that the approved designated cultural resources specialist will be available at the start of the project and is prepared to implement the mitigation measures.**
>
> **At least 10 days prior to the replacement of a designated cultural resources specialist, SPBPC shall obtain the CPUC mitigation monitor's approval of the proposed replacement cultural resources specialist.**

Mitigation Measure V.1b: In the event that previously unidentified historic resources are encountered, the new owner (SPBPC) shall evaluate such resources for California Register of Historical Resources eligibility and conduct data recovery.

The cultural resources specialist shall ensure that the evaluations are supervised by individuals meeting the Secretary of the Interior's proposed Historic Preservation Qualification Standards (United States Department of the Interior 1997) for each particular resource type. An evaluation form shall be submitted to the CPUC mitigation monitor and the California Historical Resources Information Center.

For resources determined to be significant, the cultural resources specialist will prepare a resource-specific Data Recovery Plan to mitigate any significant project-related effects. Upon approval of this plan by the CPUC mitigation monitor, mitigation measures will be implemented prior to any project activities within 100 feet of the resource's boundary.

Mitigation Measure V.1c: Prior to the commencement of construction or ground distributing activities, all construction personnel will receive environmental training in a manner that would inform all personal of the possibility of encountering cultural or historical resources.

All construction personnel involved in activities that may uncover prehistoric resources will be trained in the identification of prehistoric resources, which could include flaked stone, projectile points, mortars, pestles, and soil containing shell and bone, or human burials. Historic resources could include stone or adobe foundations or walls, structures and remains with square nails, and refuse deposits. Construction personnel involved in activities that may uncover paleontological resources will also be trained in the identification of paleontological resources, which could include true fossils, trace fossils, and/or breas as defined under the above Paleontological Resources subsection. The level of training for construction activities should be sufficient such that the workers would know when to call their supervisors to investigate objects that may be a cultural resource. Supervisors would receive sufficient training to determine when a cultural resources specialist should be contacted to identify any found objects. If cultural resources were encountered during construction, the crew would halt work in the area and not collect or disturb the materials until the cultural resource specialist, appointed under Mitigation Measure V.1a, has evaluated the location and determined an appropriate mode of action.

b) Section 21083.2 of the of the Public Resources Code defines an archaeological resource as a archaeological artifact, object, or site, which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that

it: (1) contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information; (2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person. Appendix K of the CEQA Guidelines goes beyond Section 21083.2, suggesting additional criteria to guide the Lead Agency in making a determination of uniqueness. These include that the resource be at least 100 years old and possess "substantial stratigraphic integrity" (i.e., is substantially undisturbed); and the resource involves "important" research questions that historical research has shown can be answered only with archaeological methods.

According to the records research conducted by Sonoma State, two recorded archaeological sites, a lithic scatter and a bedrock milling site, are located on the slopes to the southwest of the project site, and a large habitation reported along the banks of the arroyo to the south in the vicinity of City Hall. However, based on historic reconstructions of the bay shore and marsh margins, the project area was inundated during prehistoric times. Given the environmental setting, there is a low potential for significant Native American sites in the project area. However, pedestrian surface survey as a method in identifying cultural resources is not effective when the original ground surface is not exposed, is obscured by vegetation, or has been covered by natural or cultural fill.

Impact V.2: Trenching or boring through these resources, if significant undiscovered resources were present, would cause an adverse change to their significance. Therefore, the project would have the potential to cause adverse changes to the significance of currently unknown unique archaeological resources. This is considered a potentially significant impact.

Mitigation measure: Implement Measures V.1a, V.1b, and V.1c.

Significance after mitigation: Less than significant.

c) **Impact V.3: Installation of the new pipeline segment along the 4,000-foot replacement section would involve shallow excavations primarily in pre-disturbed soils within the UPRR easement and city streets. Because significant fossil discoveries can be made even in areas designated as having low potential, excavation activities for the pipeline could possibly unearth significant paleontological resources contained within intertidal sedimentary deposits. While this in unlikely, should such resources be encountered, this would be a significant impact. This impact would be reduced to a less-than-significant level with the incorporation of the following mitigation measure:**

Mitigation Measure V.2: SPBPC shall notify a qualified paleontologist of unanticipated discoveries, made by either the cultural resources monitor or construction personnel responding to their environmental training classes, as required in Mitigation Measures V.1a, V.1b, and V.1c, and document the discovery as needed. In the event of an unanticipated discovery of a breas, true, and/or trace fossil within the 4000-foot replacement section during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find.

Significance after mitigation: Less than significant.

d) **Impact V.4: Trenching, boring, or other subsurface excavation involved with the project could potentially disturb or destroy human remains from both prehistoric and historic time periods, including those interred outside of formal cemeteries. This considered a potentially significant impact. This impact would be reduced to a less-than-significant level with the incorporation of the following mitigation measures:**

Mitigation Measure V.3: If human remains are found at any time along the entire pipeline alignment or during project-level vegetation clearance; ground disturbance and grading; site or project mobilization; site preparation or excavation activities; implementation of erosion control measures; or the movement and/or parking of heavy equipment or other vehicles onto or over the project surface, SPBPC and its contractors shall stop all work within 100 feet of the find (Debbie Treadway, 2001). The cultural resources specialist will be notified immediately and will, in turn, immediately notify the Contra Costa County coroner, in compliance with Section 7050.5 of the California Health and Safety Code. Upon the completion of compliance with all relevant sections of the California Health and Safety Code, the cultural resources specialist will implement Mitigation Measure V.1b.

If the human remains are determined to be Native American in origin, the Contra Costa County coroner will notify the Native American Heritage Commission within 24 hours of the find. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent of the deceased Native American. The most likely descendent may make recommendations to the SPBPC and its contractors for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. Where conditions A, B, and/or C under Section 15064.5 (e) (2) occur, the landowner or authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Significance after mitigation: Less than significant.

REFERENCES

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National Register of Historic Properties Database, 2000. Online. http://www.cr.nps.gov/nr/research/nris.htm.

Northwest Information Center, 2000, Cultural Resource Record Search for the Pipeline along the Union Pacific Railroad in Martinez, Contra Costa County.

Pacific Gas and Electric Company, 2000. Proponents Environmental Assessment to Establish market Value for and Sell its Richmond-to-Pittsburg Fuel Oil Pipeline and

Hercules Pump Station Pursuant to Public Utilities code Section 367 (B) and 851. Application Number 00-05-035.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☒	☐	☐
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) 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?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

SETTING

In general, geologic materials consisting of inter-tidal marshland deposits, recent, unconsolidated alluvium and older, more consolidated bedrock underlie the existing pipeline corridor. The estuarine sediments found along the shorelines of Contra Costa County are soft, water-saturated mud, peat, and loose sands. The organic, soft, clay-rich sediments along the San Francisco and San Pablo Bays are referred to locally as Bay mud and can present a variety of engineering challenges due to its inherent low strength, compressibility, and saturated conditions. Bay mud and peat are subject to differential settlement under load and can cause slumping and landslides in sloped areas. Under seismically induced stress, Bay mud can fail causing lateral displacement. In some cases, especially in areas underlain by saturated sand deposits or artificial fill, intertidal areas underlain by Bay mud are susceptible to ground failure associated with liquefaction. Alluvium, eroded from the upland areas adjacent to the bay margin, is generally interfingered with or adjacent to the intertidal marshland deposits and consists of consolidated and

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VII. HAZARDS AND HAZARDOUS MATERIALS Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
h) 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?	☐	☐	☒	☐

SETTING

FUEL OIL TRANSPORT

The pipeline was designed to deliver fuel oil between 1,200 to 3,000 gallons per minute (gpm). Fuel oil is more viscous and less flammable than diesel or gasoline, and is often used for heating residential buildings. To allow for efficient transport, the oil is heated to temperatures ranging from 150 to 200 degrees Fahrenheit. Regular transportation of fuel oil through the pipeline ceased in 1982 through the pipelines and Hercules Pump Station continued to contain hazardous liquids. The pipeline was then maintained to operate on a stand-by basis and quantities of oil were occasionally moved through the pipeline to verify its integrity, until the 4,000-foot section

of the pipeline in Martinez was removed in 1998. However, this event did not mark the end of maintenance activities on the remaining 34-miles of pipeline. Instead, cleaning pigs were run through the pipeline in 1998 and 1999 to remove any residual oil. To minimize pipeline corrosion, the pipeline was then filled with an inert gas where the pipeline is above the water table, or in sections below the water table, water treated with corrosion inhibitors. The pipeline is also equipped with cathodic protection devices to protect against rust and corrosion, and cathodic readings on the pipeline are taken weekly. Pipeline control and communications equipment is checked twice a month and the entire pipeline route is inspected at least twice a month. In addition to routine maintenance, the pipeline is hydrostatically tested and checked with a smart-pig device every five years. A smart pig can detect pipe-wall deterioration through corrosion by measuring reductions in pipe-wall thickness; the most recent smart-pig test was conducted in 1995. Based on maintenance procedures and the results of the most recent smart-pig test, the integrity of the pipeline is sound and could be re-activated without the need for repair or modification.

A leak detection system was incorporated into the pipeline's design. The system can detect drops in pressure along the pipeline route that indicate a potential fuel oil leak. In the unlikely event of a pipeline leak, remote control isolation valves, located no more than 10 miles apart, are installed along the length of the pipeline. These valves assure rapid response and minimize fuel oil loss. These valves are currently inspected once every six months as required by regulation to insure proper function.

OPERATION OF THE HERCULES PUMPING STATION

Hazardous materials stored at the Hercules Pump Station include fuel oil and cutter stock (a light cycle oil with properties similar to fuel oil) in aboveground storage tanks (ASTs). Diesel fuel is also stored in an AST. The ASTs are built in conformance with National Fire Protection Agency (NFPA), state, and federal standards, and were recently inspected by the Rodeo-Hercules Fire Marshall for regulatory compliance. In addition, a storm water drainage collection system funnels surface water runoff from ASTs and the immediately surrounding area through an oil/water separator and into a holding basin. Facilities at the Hercules pump station are used to move cutter stock through the pipeline prior to fuel oil transport, and to pre-heat fuel oil. Pipeline monitoring and communications systems, such as the leak detection system and remote control isolation valves, are currently operated from the Hercules Pump Station. A firewater pump building and water tank are also located on-site.

A Phase II investigation was conducted in February and March 2000 by Geomatrix at the Hercules Pump Station to determine if soil or groundwater have been impacted by facility operations in anticipation of the PG&E divestiture. Laboratory analytical results indicate low concentrations of petroleum hydrocarbons are present in limited areas of the facility. Specifically, total petroleum hydrocarbons as diesel (TPHd) in soil was detected in concentrations up to 500 milligrams per kilogram (mg/kg). Total petroleum hydrocarbons as oil (TPHo) in soil was detected in concentrations up to 1,100 mg/kg. TPHd and total petroleum hydrocarbons as gasoline (TPHg) were detected in groundwater in concentrations up to 66 micrograms per liter

(µg/L) and 290 µg/L, respectively. In addition, concentrations of benzene (1.7 µg/L), toluene (19 µg/L), ethylbenzene (2.6 µg/L), and total xylenes (12 µg/L) were detected in groundwater.

Should the Hercules Pump Station be redeveloped and regraded, constituent concentrations may require that soil generated by these activities be remediated onsite or disposed of at an off-site facility. However, redesign of Hercules Pump Station is not part of the proposed project. Concentrations of constituents in groundwater are below the respective California Department of Health Services Maximum Contaminant Levels (MCLs), with the exception of benzene (MCL for benzene is 1 µg/L).

PIPELINE REPLACEMENT

PG&E has obtained a 20-foot permanent easement from the City of Martinez and East Bay Regional Park System to allow for the installation of the replacement section. According to information supplied by PG&E (PEA, pg. 3-7), the 4,000-foot replacement section will be designed to the latest American Petroleum Institute Standard (APIS) and the size and grade of the pipe would be consistent with the extant section (16-inch outside diameter, 0.281-inch wall thickness, material grade X-46). To minimize potential disturbance by the general public, the pipeline would be located a minimum of 42-inches below ground. SPBPC would follow standard construction procedures for below ground utility work, such as notifying Underground Service Alert (USA) to minimize the potential for damage to existing underground utilities, and obtain encroachment permits from both the City of Martinez and the East Bay Regional Park System for construction activities.

The proposed pipeline route has not been assessed for the potential to encounter hazardous materials during construction, although a portion of the pipeline would be located near the recently constructed Martinez Intermodal Station, which was previously assessed prior to construction. There are several contaminated areas within the vicinity of the Martinez Intermodal Station, as noted in the Martinez Intermodal Station Project Final Environmental Assessment. These included the Union Pacific Railroad (UPRR) Corporation Yard, which is contaminated from a diesel tank removal in 1987 and the City of Martinez Corporation Yard (underground waste oil contamination in 1987). However, both of these locations are south of the UPRR tracks and are not directly adjacent to the proposed 4,000-foot replacement section (Pacific Gas and Electric Company, November 2000).

DEFINITIONS

Hazardous Materials Hazardous materials are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are grouped into the following four categories, based on their properties: toxic (causes human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), and reactive (causes explosions or generates toxic gases). Hazardous materials have been and are commonly

used in commercial, agricultural, and industrial applications as well as in residential areas to a limited extent.

Hazardous Waste A hazardous waste is any hazardous material that is discarded, abandoned, or is to be recycled. The criteria that render a material hazardous also make a waste hazardous (California Health and Safety Code, Section 25151). If improperly handled, hazardous materials and wastes can result in public health hazards if released to the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of constituents higher than certain regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contains technical descriptions of characteristics that could cause soil or groundwater to be classified as hazardous waste.

REGULATORY SETTING

HAZARDOUS WASTE HANDLING

The California Environmental Protection Agency (Cal EPA), Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. In Contra Costa County, investigation or remediation of contaminated sites is performed under the direction of the local oversight program (LOP), the Contra Costa County Health Department. The LOP oversees sites in cooperation with the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), and Cal EPA.

Site remediation or development may also be subject to regulation by other agencies. For example, if dewatering of a site were required during construction associated with pipeline replacement, subsequent discharge to the stormwater system or sewer system could require a permit from the San Francisco Bay Region (RWQCB), or Contra Costa Sanitary District, respectively.

WORKER SAFETY

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the work place. The California Division of Occupational Safety and Health (Cal OSHA) and the federal Occupational Safety and Health Administration are the agencies responsible for assuring worker safety in the workplace. Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. At sites known to be contaminated, a Site Safety Plan must be prepared to protect workers. The Site Safety Plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site (National Institute for Occupational Safety and Health, 1985).

CONTRA COSTA COUNTY AND CITY HAZARDOUS MATERIALS POLICIES

The Contra Costa County General Plan contains hazardous materials policies, as does the City of Pinole. Although other cities along the pipeline's route do not contain specific hazardous materials policies in the respective General Plans, many have Hazardous Waste Management Plans containing implementation measures in the event of a hazardous materials spill.

The Contra Costa County Hazardous Waste Management Plan is the primary planning document for hazardous waste produced by facilities within the county. This plan outlines the procedures that county regulatory and response agencies use for managing, monitoring, containing, and removing hazardous materials from the site of an actual or threatened accidental release. The plan also identifies the agencies within the county responsible for the effective management of hazardous materials produced or generated. In addition, the County Office of Emergency Services (OES) has prepared emergency and disaster plans and procedures. Relevant Contra Costa County General Plan policies regarding hazardous materials include:

- **10-61** Hazardous waste releases from both private companies and from public agencies shall be identified and eliminated.
- **10-62** Storage of hazardous material and wastes shall be strictly regulated.
- **10-64** Industrial facilities shall be constructed and operated in accordance with up-to-date safety and environmental protection standards.
- **10-67** To the greatest possible extent, new fuel pipelines should not be routed through centers of population nor should they cross major disaster evacuation routes.
- **10-68** When an emergency occurs in the transportation of hazardous materials, the OES shall be notified as soon as possible.
- **10-69** Industry should be encouraged to utilize underground pipelines, rail, and water transportation of hazardous materials to the greatest extent feasible to take advantage of the greater separation from the general public provided by these modes of transportation.

Policies set forth for hazardous materials by the City of Pinole require:

- proper storage and disposal of hazardous materials,
- evaluation of new development sites which may have involved hazardous materials prior to development, and
- support measures to responsibly manage hazardous waste to protect public health, safety, and the environment.

SCHOOLS

Existing schools near the existing pipeline route were built either prior to construction of the Richmond to Pittsburg Fuel Oil Pipeline and Hercules Pump Station or while the pipeline and pump station were operating. There are no schools within 0.25 miles of the proposed route for the replacement section in Martinez. Therefore, the only known school that could be affected by the project is a proposed school near the Hercules Pump Station. Construction of that school would be subject to the state's school siting regulations and policies in the City of Hercules General Plan's Waste Management Plan. These would include:

CALIFORNIA CODE OF REGULATIONS, TITLE 5

The site (school) shall not be near an above-ground water or fuel storage tank or within 1,500 feet of the easement for an above or below-ground pipeline that can pose a safety hazard as determined by a risk analysis study, conducted by a competent professional, which may include certification from a local public utility commission.

CITY OF HERCULES GENERAL PLAN, HAZARDOUS WASTE MANAGEMENT PLAN

Prior to the start of any construction on any parcel that is bordered by a pipeline right-of-way or easement, the City shall consult with the Rodeo-Hercules Fire Protection District and the operator(s) of the affected pipeline(s) regarding the adequacy of safety procedures for pipeline accidents.

The proposed school would comply with state and local regulations, reducing potential hazards associated with operations at the Hercules Pump Station to a less than significant impact.

HAZARDS AND HAZARDOUS MATERIALS IMPACTS DISCUSSION

a,b) Pipeline construction activities would require the use of certain hazardous materials such as fuels, oils, solvents and glues. Inadvertent release of large quantities of these materials into the environmental could adversely impact soil, surface waters, or groundwater quality. However, the on-site storage and/or use of large quantities of materials capable of impacting soil and groundwater are not typically required for a project of proposed size and type. The use of construction best management practices typically implemented as a condition of building and encroachment permits issued by local jurisdictions for construction would minimize the potential negative effects to groundwater and soils. These could include the following:

- Follow manufacturer's recommendations on use, storage and disposal of chemical products used in construction;
- Avoid overtopping construction equipment fuel gas tanks;

- During routine maintenance of construction equipment, properly contain and remove grease and oils; and

- Properly dispose of discarded containers of fuels and other chemicals.

Current and future fuel oil storage and transport utilizing the Hercules Pump Station would be conducted in accordance with federal, state, and local rules, regulations, and policies. The US Department of Transportation Office of Pipeline Safety (OPS) would be the agency primarily responsible for safety oversight of the operations of the pipeline. In California, OPS has delegated the responsibility for conducting periodic safety inspections of oil pipelines to the state Office of the Fire Marshal. With this safety oversight regime in place, potential hazards to the public caused by any future operation of the project would be reduced to a less than significant level.

c) Impacts on Local Schools.

Pipeline Replacement

There are no schools within 0.25 miles of the 4,000-foot replacement route in Martinez.

Fuel Oil Transport

The pipeline is located within 0.25 miles of one school in Richmond (Verde Elementary), two schools in Crockett (John Swett High and Carquinez Middle), two schools in San Pablo (Lake Elementary and Seaview Elementary), and two schools in Rodeo (Garretson Heights and St. Patrick's). The proposed project does not include changing the type of material to be transported through the pipeline, which began operation in the late 1970s, and transportation of fuel oil through the pipeline would comply with Contra Costa County hazardous materials policies. Potential impacts are therefore considered less than significant.

Operation of the Hercules Pump Station

The Hercules Pump Station is within approximately 1,000-feet of a proposed 8-acre school site. The school is called for in the City of Hercules' General Plan, but has not yet received its needed approvals by the Hercules School District and the city's Planning Commission or City Council. However, the proposed school would comply with school siting restrictions in the California Code of Regulations as described below, and applicable policies in the City of Hercules General Plan's Waste Management Plan, as described above.

d) The existing pipeline passes through or adjacent to sites that are included on the list of hazardous materials sites complied pursuant to Government Code Section 65962.5 (Cortese list), and one Cortese site is found in the easement for the UPRR and Ferry

Street in Martinez, directly along the alignment of the future 4,000-foot replacement section of the pipeline.

A search of the 1994 list of hazardous materials sites complied pursuant to Government Code Section 65962.5 (Cortese list) found the following sites that were on properties along the alignment or adjacent to the alignment of the existing Richmond-Pittsburg pipeline:

- Southern Pacific Pipelines, Castro & Hensley, Richmond
- Rheem Pacific Packaging Corporation, 801 Chesley Avenue, Richmond
- Richmond Maintenance Yard, 845 Brookside Avenue, Richmond
- Hercules Properties, Ltd., 560 Railroad Avenue, Hercules
- Chevron, 400 Parker Avenue, Rodeo
- Unocal, 401 Parker Avenue, Rodeo
- Mannon Estate, Rodeo Muffler, 650 Parker Avenue, Rodeo
- Fire Station #2, 679 Parker Avenue, Rodeo
- Creative Fencing, 670 San Pablo Avenue, Rodeo
- C & H Sugar Company, 830 Loring Avenue, Crockett
- Southern Pacific, 401 Ferry Street, Martinez
- Shell Oil Company, 1800 Marina Vista Way, Martinez
- Shell, Kantor's Furniture, 1801 Marina Vista Way, Martinez
- Shell Martinez Pump Station, Marina Vista Way
- Landsea Terminals, Inc., 2801 Waterfront Road, Martinez

Movement of oil through the existing pipeline would not affect any contaminated materials reported properties in the vicinity of the pipeline, and the approval of the project would not create a hazard to the public or the environment from materials that may still be present at these listed sites.

The site at 401 Ferry Street in Martinez is at a location that could be disturbed by the construction of the replacement section for the pipeline. The site was listed for the presence of gasoline. The site was reviewed January 23, 1997, and no remediation was deemed necessary.

A search of available environmental records (out to a two-mile radius) on hazardous materials around the Cortese site at 401 Ferry Street in Martinez identified only one other site within the 20-foot easement along the future location of the replacement section. This site at 209 Berrellesa Street, appeared on the Haznet List for waste oil and mixed oil from Al's Auto Retail. The site is now inactive. A site from the Leaking Underground Storage Tank (LUST) Incident Reports lies approximately 200-feet north of the railroad. Remedial action has been completed and contaminated soil has been excavated. The site was closed on the LUST Reports in 1999.

There is the potential for pipeline replacement trenching or boring construction activities to encounter impacted soil or groundwater, as the pipeline route is located adjacent to areas with previously identified contamination, such as in the vicinity of the Martinez Intermodal Station..

Impact VII.1: If the 4,000-foot replacement section of pipeline encounters soil or groundwater contaminated by previous activities in the area, excavation or extraction of groundwater could expose construction workers and the public to potentially hazardous conditions.

Mitigation Measure VII.1: Prior to construction SPBPC shall conduct a Phase I Environmental Site Assessment along the length of the replacement pipeline route to ascertain the potential for construction activities to encounter impacted soil and/or groundwater, and submit the Phase I Environmental Site Assessment to the CPUC staff for review and approval by the CPUC mitigation monitor. Should the Phase I indicate the pipeline route would likely disturb impacted materials, a Phase II Environmental Site Assessment shall be conducted to quantify levels of contamination along the pipeline route, and establish appropriate measures to protect construction workers and the general public from exposure to impacted materials. SPBPC shall submit the Phase II Environmental Site Assessment to the CPUC mitigation monitor for review and approval. In addition, should Phase I or Phase II activities determine that construction activity will involve trenching or tunneling through potentially impacted areas, SPBPC shall implement the following mitigation measures:

> **Mitigation Measure VII.1a: An environmental site health and safety plan shall be created to address worker safety hazards that may arise during construction activities.**
>
> **The contractor shall be required to comply with all applicable OSHA regulations regarding worker safety, consistent with standard City practices. The OSHA-specified method of compliance will be dependent upon the severity of impact to soil or groundwater, as determined by the Phase I and II investigations.**
>
> **Mitigation Measure VII.1b: During construction SPBPC shall comply with all applicable regulatory agency requirements including those set forth by Contra Costa County and the California DTSC regulations regarding the storage, and transportation of impacted soil and groundwater.**
>
> **Impacted soil generated by remediation and construction activities will be contained on-site and sampled prior to disposal at an appropriate facility, or potential re-use at the project site. Impacted groundwater generated during construction dewatering will be contained and transported off-site for disposal at an appropriate facility, or treated prior to discharge into the**

storm drain or sanitary sewer to levels which are acceptable to the San Francisco Bay Region (RWQCB), or Contra Costa Sanitary District, respectively.

Significance after mitigation: Less than significant.

e,f) The project is not located within two miles of a public airport or public use airport, and is not located in the vicinity of a private airstrip.

g) No emergency response plan or evacuation plan has been identified for the project area, but construction of the 4,000-foot pipeline sections could restrict exit routes from the adjacent Martinez Regional Shoreline Park. According to materials supplied by PG&E, SPBPC would obtain necessary encroachment permits from the City of Martinez prior to the onset of construction associated with pipeline installation activities. In addition, SPBPC would consult with the City of Martinez Fire Department regarding any proposed road closures or detours to minimize access disruption, as discussed in Traffic and Transportation.

Impact VII.2. Construction of the 4,000-foot replacement section of the pipeline in the City of Martinez may temporarily restrict evacuation of the Martinez Regional Shoreline Park.

Mitigation Measure: Implement Mitigation Measure XV.1.

Significance after mitigation: Less than significant.

h) Construction associated with pipeline replacement would occur within an urbanized area of Martinez. Operation of the Richmond to Pittsburg Fuel Oil Pipeline and Hercules Pump Station would comply with Contra Costa hazardous materials policies, and not expose people or structures to wildland fires.

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unconsolidated coarse-grained sediments and finer-grained silts and clays. The areas of the pipeline that are located on intertidal deposits extend from Richmond to Hercules and from southern Port Costa to the Pittsburg Power Plant.

The portions of the pipeline between Hercules and Crockett are located on bedrock formations consisting of sandstone, conglomerate, and claystone. The Hercules Pump Station is supported on engineered artificial fill and bedrock formations consisting of sandstone, conglomerate, and claystone.

The pipeline segment from Crockett to Port Costa (unincorporated areas) is underlain by marine mudstone, sandstone, and conglomerate that is part of the Great Valley Sequence. The inherent strength and stability of the Great Valley Sequence bedrock units provides suitable foundation material with stable slopes, however, this bedrock is susceptible to landsliding in certain areas where the bedrock is excessively weathered, sheared, fractured, or contorted.

The 4,000-foot replacement section in Hercules is located on alluvial deposits. In Pittsburg, the pipeline generally runs along the border between the intertidal marshland and alluvial materials.

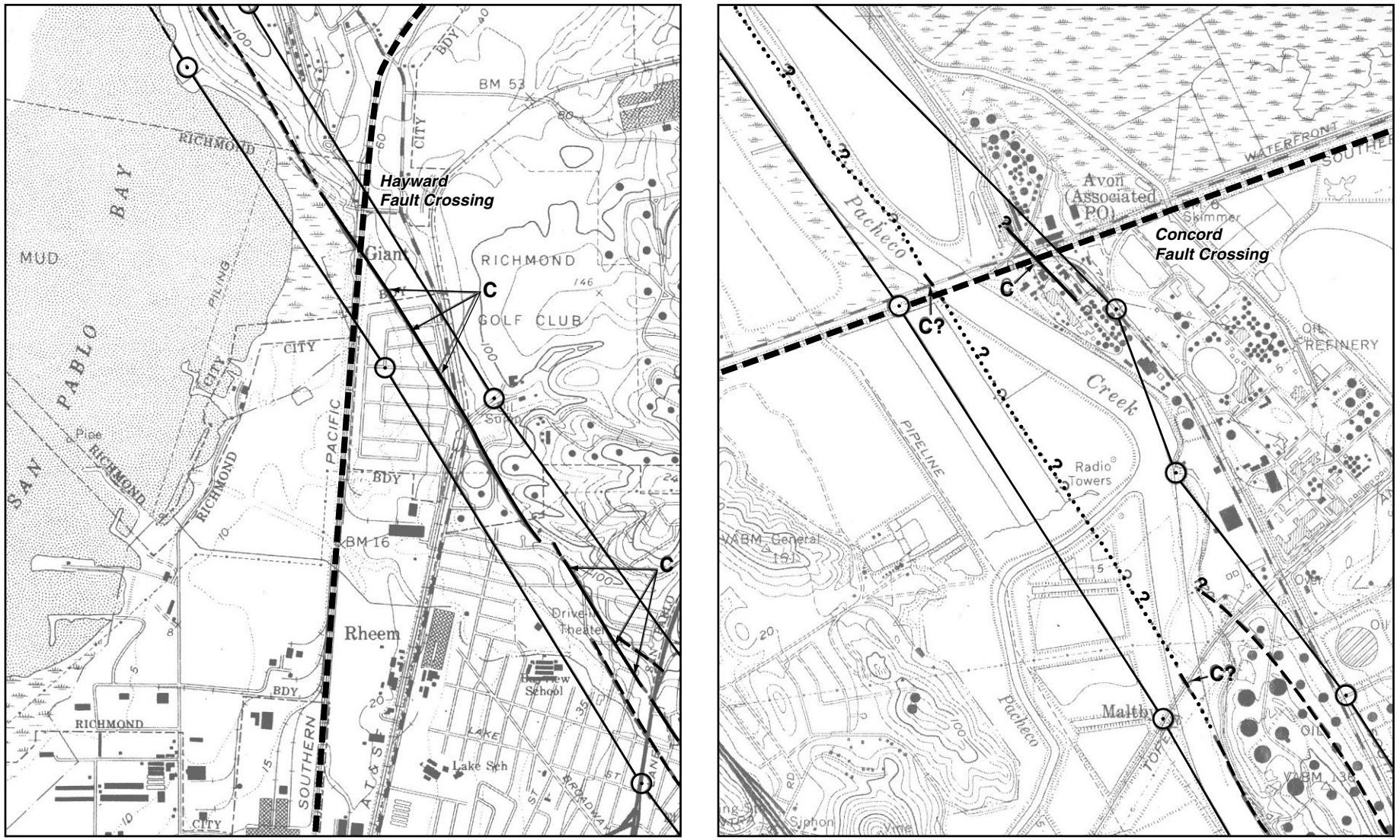
SEISMICITY

The fuel oil pipeline is located in the San Francisco Bay Area, a region containing both active and potentially active faults and intense seismic activity. The 1997 Uniform Building Code (UBC) locates the entire Bay Area within Seismic Risk Zone 4. Areas within Zone 4 are expected to experience maximum magnitudes and damage in the event of an earthquake (Lindenburg, 1998). The U.S. Geological Survey (USGS) Working Group on California Earthquake Probabilities has evaluated the probability of one or more earthquakes of Richter magnitude 6.7 or higher occurring in the San Francisco Bay Area within the next 30 years. The result of the evaluation indicated a 70 percent likelihood that such an earthquake event will occur in the Bay Area between 2000 and 2030 (USGS, 1999).

REGIONAL FAULTS

The pipeline crosses the active Hayward and Concord faults northwest of the City of San Pablo and east of the City of Martinez, respectively (**Figure 3**). The combined southern and northern segments of the Hayward fault, as well as the San Andreas fault and Calaveras fault, are considered by the USGS to pose the greatest threat of generating at least one earthquake with a magnitude 6.7 or greater earthquake over the 30 years (USGS, 1999).

The pipeline is also located near other active faults, such as the Clayton segment of the Marsh Creek-Greenville fault located 5 miles south, the Napa fault located 7 miles north, and the San Andreas fault located 20 miles west. The Hercules Pump Station is located approximately 2 miles from the Hayward fault. In addition, the existing pipeline, the proposed 4,000-foot replacement section, and the Hercules Pump Station cross or are located immediately adjacent to numerous potentially active faults such as the Franklin, Pinole, and Southampton faults.



Alquist-Priolo Fault Rupture Zones
These are delineated as straight line segments that connect encircled turning points so as to define earthquake fault zone segments. Fault traces are delineated by a solid line where accurately located, long dash where approximately located, short dash where inferred, dotted where concealed; query (?) indicates additional uncertainty. Evidence of historical offset indicated by C for displacement by creep or possible creep.

SOURCE: Environmental Science Associates

PG&E Divestiture / 200496 ■

Figure VI-1
Alquist-Priolo Fault Rupture Zones

GEOLOGIC HAZARDS

LANDSLIDES

A landslide is a mass of rock, soil, and debris displaced down-slope by sliding, flowing, or falling. The susceptibility of land to slope failure is dependent on the slope and geology as well as the amount of rainfall, excavation or seismic activities. Steep slopes and down-slope creep of surface materials characterize areas most susceptible to landsliding. Landslides are least likely in topographically low alluvial fans and at the margin of the San Francisco Bay.

SOIL EROSION

Soil erosion is the process whereby soil materials are worn away and transported to another area either by wind or water. Rates of erosion can vary depending on the soil material and structure, placement and human activity. The erosion potential for soils is variable throughout the project area. Soil containing high amounts of silt can be easily erodible while sandy soils are less susceptible. Excessive soil erosion can eventually lead to damage of building foundations, roadways and dam embankments. Erosion is most likely on sloped areas with exposed soil; especially where unnatural slopes are created by cut and fill activities. Soil erosion rates can therefore be higher during the construction phase.

EXPANSIVE SOILS

Expansive soils possess a "shrink-swell" characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may occur over a long period of time, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils.

SEISMIC HAZARDS

Surface Fault Rupture

Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. The magnitude, sense, and nature of fault rupture can vary for different faults or even along different strands of the same fault. Future faulting is generally expected along different strands of the same fault (CDMG, 1997). Ground rupture is considered more likely along active faults, which are referenced above.

Ground Shaking

Ground movement intensity during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material. Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments such as artificial fill. The composition of underlying soils in areas

located relatively distant from faults can intensify ground shaking. As the majority of the pipeline is located in unconsolidated estuarine and alluvial sediments, ground-shaking effects would be amplified during an earthquake.

Liquefaction

Liquefaction is a phenomenon whereby unconsolidated and/or near saturated soils lose cohesion and are converted to a fluid state as a result of severe vibratory motion. The relatively rapid loss of soil shear strength during strong earthquake shaking results in the temporary fluid-like behavior of the soil. Soil liquefaction causes ground failure that can damage roads, pipelines, underground cables, and buildings with shallow foundations. Liquefaction can occur in areas characterized by water-saturated, cohesionless, granular materials at depths less than 40 feet (ABAG, 1996). In addition, liquefaction can occur in unconsolidated or artificial fill sediments such as those located in reclaimed areas along the margin of San Francisco Bay. The depth of groundwater influences the potential for liquefaction in this area: the shallower the groundwater, the higher potential for liquefaction. Liquefaction potential is highest in areas underlain by Bay fills, Bay mud, and unconsolidated alluvium.

Seismically-Induced Landslides

As with landslides that occur due to static forces (described above) earthquakes can generate slope failures due to seismic ground motion dislodging slope material. The susceptibility of land (slope) failure during an earthquake is dependent on the level of ground shaking, underlying geology, thickness of alluvial material, degree of saturation.

REGULATORY BACKGROUND

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near fault traces to reduce the hazard of fault rupture and to prohibit the location of most structures for human occupancy across these traces. Cities and counties must regulate certain development projects within the zones, which includes withholding permits until geologic investigations demonstrate that development sites are not threatened by future surface displacement (Hart, 1997). Surface fault rupture is not necessarily restricted to the area within an Alquist-Priolo Zone.

SEISMIC HAZARDS MAPPING ACT

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones

and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation of the site must be conducted and appropriate mitigation measures incorporated into the project design. The California Division of Mines and Geology has not yet completed a preliminary Seismic Hazards Map for the areas encompassed by the project.

CALIFORNIA BUILDING CODE

The California Building Code is another name for the body of regulations known as the California Code of Regulations (CCR), Title 24, Part 2, which is a portion of the California Building Standards Code (CBSC, 1995). Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable (Bolt, 1988).

Published by the International Conference of Building Officials, the Uniform Building Code is a widely adopted model building code in the United States. The California Building Code incorporates by reference the Uniform Building Code (UBC) with necessary California amendments. About one-third of the text within the California Building Code has been tailored for California earthquake conditions (ICBO, 1997).

GEOLOGY AND SOILS IMPACTS DISCUSSION

a-i) Portions of the pipeline corridor are located within an Alquist-Priolo Earthquake Fault Zone , as defined by the California State Department of Conservation, Division of Mines and Geology (CDMG) (Figure 3). The pipeline crosses the active Hayward and Concord faults northwest of the City of San Pablo and east of the City of Martinez, respectively. The potentially active Franklin, Pinole, and Southampton faults are not zoned as Earthquake Fault Zones under the Alquist-Priolo Act. Although these faults are susceptible to fault rupture, especially as secondary movement triggered by a nearby active fault, they are considered less of a seismic hazard than other active Bay Area faults because of their lower probability of activity and low potential to generate surface fault rupture.

In the event of an earthquake on the Hayward fault, sudden offset is expected to be approximately 5 feet of overall horizontal displacement (lateral offset of 3 feet and compression of 4 feet) as estimated by Harding-Lawson Associates (HLA) in 1974. HLA determined that lateral fault offset during an event on the Concord fault would be approximately 2 feet with negligible vertical component of movement. Where the pipeline crosses the Hayward and Concord faults, it is contained within an over-sized, reinforced concrete conduit to provide unrestrained movement for the pipe, thereby reducing overstress caused by sudden offset. Sufficient clearance for the pipe is provided so the pipe can move without being constrained by the walls of the conduit. With this

design, the pipeline is subjected to horizontal and vertical displacements of the conduit but is not directly subjected to ground deformation (Bechtel, 1974).

The pipeline crosses the Hayward and Concord faults at angles less than 90 degrees. Because these faults exhibit relative lateral movement, axial elongation or compression can occur as the pipeline is stretched or compressed by surface displacements during an earthquake. The pipeline is designed to compensate for axial elongation or compression through flexibility provided by a U-shaped pipe configuration. Appropriate stress and strain evaluations were also incorporated into the design of the pipeline and conduit to ensure that the pipe would withstand dynamic loads from lateral offset of the faults.

Lateral movement of a fault trace not associated with an earthquake, known as tectonic creep, can also result in measurable displacement across a fault and eventual damage to structural features placed across the fault. The maximum estimated tectonic creep, or slip rate across the northern Hayward fault is 9 (+ 1) millimeters (0.354 inches) per year (USGS/CDMG, 1996). Tectonic creep on the Hayward fault was estimated by HLA (in 1974) at approximately 3 inches in 10 years of both lateral offset and compression. Tectonic creep on the Concord fault was estimated to result in 4 inches in 10 years of lateral offset, and 1 inch in 10 years of elongation. Bechtel incorporated design features for the pipeline that would compensate for the potential tectonic creep, which included placing the pipes in concrete conduits that would compensate for the movement. HLA recommended that tectonic creep rate and deformation at the Hayward and Concord fault crossings be monitored regularly as creep rates could increase or decrease significantly in the future. P.G.&E. found no documents that record monitoring of tectonic creep. Although U-bends compensate for displacement, axial elongation, or compression caused by fault movement, and thus far, PG&E reports no problems attributable to creep, the pipeline's present ability to withstand future offset generated by tectonic movement or sudden earthquake displacement cannot be fully determined, because the amount of pipeline distortion from historical creep is unknown. For example, if tectonic creep on the Hayward fault was to occur at the estimated 9 millimeters per year, it is conceivable that since the pipeline construction in 1974, this fault segment could have undergone up to 9 inches of displacement. As of 1974, street curbs built across the Concord fault in the City of Concord were observed to have moved 15 centimeters (6 inches) since 1949 (SFBCDC, 1974).

Impact VI.1: Although PG&E reports no problems attributable to tectonic creep, the pipeline's present ability to withstand future offset generated by tectonic movement or sudden earthquake displacement cannot be fully determined, because the amount of pipeline distortion from historical creep is unknown. Therefore, an assessment of historical and cumulative tectonic creep and an inspection of creep compensating design features is required at the pipeline-fault crossings to determine the current ability of the pipeline to accommodate future distortion from lateral or vertical offset, elongation, or compression in the event of continued tectonic creep or displacement during a characteristic earthquake on the Hayward and Concord

faults. The following mitigation measure would ensure that the existing flexibility of the pipeline is sufficient to withstand a substantial seismic event on the aforementioned faults.

Mitigation Measure VI.1: Prior to operation of the pipeline, the new owner (SPBPC) shall perform an evaluation of the effect of tectonic creep on the pipeline at the Hayward and Concord fault crossings. A civil or geotechnical engineer licensed by the State of California, with expertise in seismic design and structural seismic response shall conduct this evaluation. The evaluation shall include a review of available geotechnical, engineering, and construction design and testing information to determine original pipeline bending and compression/elongation capabilities at the fault crossings. Secondly, the evaluation shall include an inspection of the pipeline to determine the degree to which the pipeline has been affected by tectonic creep along the Hayward and Concord fault crossings since installation in the 1970's. This evaluation shall be submitted to the CPUC mitigation monitor. Should this evaluation determine that tectonic creep has rendered the pipeline unable to withstand a major seismic event on the Hayward or Concord fault, or to withstand the further seismic creep expected along the two faults during the expected operating lifetime of the pipeline, SPBPC shall undertake repair or modification of the pipeline accordingly, and submit documentation to the CPUC mitigation monitor showing these repairs or modifications have been completed. In accordance with federal regulation (Title 49, Section 195, et al.), the pipeline will be inspected on a regular basis, and immediately following a seismic event or any other event that may effect the safety of the pipeline system or pump station. The findings of these inspections would be reported to the State Fire Marshall, which in California assumes responsibility for enforcement of the above regulations for the federal Department of Transportation.

In addition to the above mitigation measure, remote control isolation valves are installed on either side of the Concord fault crossing, and immediately northwest of the Hayward fault crossing to stop the flow of oil through the pipeline. When the control system detects a significant loss of pressure, as would be the case during a pipeline rupture, these isolation valves would activate and close, thus reducing the fuel oil loss at the rupture. The specially designed concrete conduit encasement of the pipeline at fault crossings, U bends, inspections required through Mitigation Measure VI.1 and remote isolation valves would reduce impacts associated with fault rupture and subsequent pipeline displacement on the Hayward fault or Concord faults.

Significance after mitigation: Less than significant.

a-ii) In the event of an earthquake on any of the aforementioned faults, the pipeline and Hercules Pumping Station would be subject to strong ground shaking. Segments of the pipeline that extend over intertidal marshland sediments, such as Bay Mud, would likely experience the strongest movement because these soft, saturated sediments tend to amplify the ground movement. For example, the pipeline segment that crosses Hastings Slough is likely to experience a greater peak ground acceleration than the a segment

supported by bedrock during the same seismic event. The tendency for soft, saturated sediments to amplify ground shaking was observed during the 1989 Loma Prieta earthquake where measured peak ground acceleration in the soft Bay mud and artificial fill sediments near the San Francisco Airport was 0.3 g while the bedrock on Yerba Buena Island measured peak ground acceleration of 0.06 g. The maximum peak ground acceleration recorded during the Loma Prieta event was 0.64 g at the epicenter.

HLA's 1974 geotechnical and seismic study evaluated potential seismic ground motion that could be generated in Bay mud and peat materials underlying Hastings Slough during a major Bay Area earthquake. HLA computed peak ground surface accelerations as high as 0.68 g in the Hastings Slough and recommended that the trestle supporting the pipeline be founded on friction piers driven to depths below the loosely consolidated sediments into more competent and denser sediments. As a result, the segment of the pipeline crossing Hastings Slough, which is most susceptible to amplified ground shaking, is supported by several 65-foot long, 10-inch square precast, prestressed, concrete piles spaced 55 feet apart. This design is expected to tolerate peak ground acceleration and ground movement generated by a characteristic earthquake on the primary active Bay Area faults. In addition, the existing pipeline's design meets the American Petroleum Institute (API) and industry standards that consider effects of seismic ground shaking in the design parameters of fuel and oil facilities. In any major seismic event, ground motion could be excessive and generate movement beyond what some structural elements could tolerate, resulting in minor structural damage such as broken welds, loosened anchoring structures or minor linear distortions to the pipeline itself. This type of damage would be detected during post–earthquake pipeline inspections and repaired in a timely manner to avoid extended delays in pipeline service or in the worse case, pipeline leakage. As mentioned above, remote control isolation valves are installed on either side of the Concord fault crossing, and immediately northwest of the Hayward fault crossing to stop the flow through the pipeline in the event of a major leak caused by earthquake damage. Considering previous seismic and geotechnical evaluation, resulting design and construction of the pipeline and support structures, and safety elements such as isolation valves and routine inspections, the impacts related to potential pipeline rupture due to earthquake ground shaking is reduced to a less than significant level.

Similar to the pipeline, the Hercules Pumping Station is likely to experience strong ground shaking during earthquakes on the Hayward fault or other major Bay Area active faults. Seismic ground shaking could cause damage to operating systems and to structural elements of the pump station resulting in temporary service interruptions. However, because the pump station facility buildings and major pipeline-related equipment was designed to building codes, API, and industry standards in place when it was constructed, major damage resulting in permanent closure of the facility is not anticipated. As would be expected in any major earthquake, building structures could experience minor structural damage, furniture and equipment could topple, or pumping

systems may be distressed resulting in minor leakage. Complete structural collapse or major injuries would be less likely at the pumping station given that it was designed and constructed to appropriate building codes and industry standards. The Hercules Pump Station is equipped with a secondary containment system for all above-ground storage tanks, so in the unlikely event of a tank rupture resulting from seismic ground shaking or other ground failure, tank contents would be captured to avoid leakage into the environment. Although the potential for seismic ground shaking to occur at the pumping station is unavoidable, the risk of excessive, permanent damage or major injury to workers is anticipated to be relatively minor, therefore, ground shaking hazards are considered less than significant. The 4,000-foot pipeline replacement section would be located in an area subject to strong seismic ground shaking. Similar to the existing pipeline segments and facilities described above, the 4,000-foot replacement segment could be subjected to damage occurring as a result of a major seismic event. Significant damage resulting in pipeline rupture or long-term service interruptions would occur if the seismic event generated ground motions exceeding what the pipeline and support structure could tolerate. While complete pipeline failure is not anticipated, seismic ground motion could cause damage requiring temporary service disruption, and post-earthquake inspections. Damage could include broken welds or minor linear distortion. Seismic ground shaking along the 4,000-foot replacement segment is unavoidable but appropriate site evaluation, engineering analysis and structural design, as addressed by Mitigation Measure VI.2 discussed below, could reduce the potential for damage caused by earthquakes.

Impact VI.2: The 4,000-foot pipeline replacement section could be subjected to strong ground shaking during a seismic event, potentially resulting in pipeline rupture or long-term service interruption.

Mitigation Measure VI.2: Prior to commencing construction activities, the new owner (SPBPC) shall prepare a geotechnical report for the 4,000-foot replacement route in Martinez that includes an analysis of ground shaking effects, liquefaction potential, earthquake-induced settlement, and other seismic hazards and provide recommendations to reduce these hazards. The geotechnical and seismic evaluation shall be conducted by a California-registered geotechnical engineer and include appropriate evaluation of anticipated ground motion using currently accepted seismic parameters and methods. Subsurface exploration and soil testing, where appropriate, shall be conducted to assess the soil and bedrock conditions along the proposed pipeline easement. Where applicable, structural and seismic design parameters shall conform to the current Uniform Building Code (UBC) and the API standards. The results of the geotechnical evaluation shall be submitted to the CPUC mitigation monitor. Based on the geotechnical study, recommendations of the geotechnical engineer shall be incorporated into the design and construction of the pipeline segment. In addition to complying with all applicable local, state, and federal policies, codes, and regulations, SPBPC shall submit documentation to the CPUC mitigation monitor showing these recommendations were implemented.

Significance after mitigation: Less than significant.

The pipeline is likely to be susceptible to liquefaction hazards in locations where the pipeline crosses estuarine soils with high water table conditions, such as through portions of Richmond and in Hastings Slough. Liquefaction of sediments could result in settlement or distortion of the pipeline causing substantial damage to the pipeline, particularly in Hastings Slough where the pipeline crosses through marshland. As mentioned above, liquefaction occurs when ground motion suddenly decreases the strength of cohesionless saturated sediments (i.e. sand) by collapsing the grain structure. Hastings Slough is underlain by saturated Bay mud with scattered locations of cohesionless sand that were found to be shallow and somewhat dense, therefore, ground failure due to liquefaction was not considered probable at Hastings Slough (Bechtel, 1974). Review of the soil exploration logs provided in the 1974 HLA report supports the finding that although cohesionless materials are present at relatively shallow depths in the slough, they are underlain by progressively denser cohesive clays (older Bay mud) to the maximum depth explored of about 55 feet. However, if liquefaction were to occur in localized areas in Hastings Slough, it is unlikely to cause ground failure capable of damaging the pipeline because the pipeline is supported by driven piles which extend through the loose, saturated Bay mud and peat deposits, and penetrate the underlying stiff, consolidated clays. The denser cohesive clays provide the friction necessary to support the piers. Given that the pipeline support piers are deep enough not to be affected by liquefaction, impacts related to liquefaction ground failure are considered less than significant.

The Hercules Pumping Station is unlikely to experience liquefaction, due to its foundation on Tertiary formations consisting of hard marine sandstone and shale overlain by soft soils non-marine units, estuarine soils, and engineered artificial fill. Further, because the pumping station site soils and slopes were engineered prior to construction, it is expected that if previous geotechnical site evaluations identified potentially liquefiable soils they were removed and replaced with engineered material prior to construction. The pumping station was constructed in compliance with applicable state and local codes and to API guidelines where appropriate. Liquefaction hazards on the pumping station site are considered less than significant.

Impact VI.3: The 4,000-foot pipeline replacement route in Martinez would be subject to liquefaction hazards.

Mitigation Measure: Incorporation of Mitigation Measure VI.2.

Significance after mitigation: Less than significant.

a-iv) Although the majority of the pipeline is located in flat areas along the shoreline, several parts of Richmond, Pinole, Hercules, Rodeo, Martinez, and Pittsburg are filled reclaimed areas with high landslide potential. In addition, many parts of Crockett and Port Costa

are over 26 percent in slope and have inherent slope instability. An assessment of the pipeline route was conducted by HLA prior to pipeline construction for the purpose of identifying areas of potential slope instability. Recommendations were then provided by HLA for relocation of the pipeline to avoid or minimize pipeline susceptibility to slope failure hazards. These recommendations were incorporated into final pipeline routing. In most cases, the pipeline easement is situated on a flat slope cut bench (i.e. railroad right of way) and the pipeline placed at sufficient distance from the slope to avoid potential damage. Appropriate engineering evaluation and the subsequent rerouting of the pipeline away from potentially unstable slopes reduced potential landslide impacts to a less than significant.

The Hercules Pump Station is located on an engineered, artificial slope. Proper slope stability analysis and engineering design can overcome the factors that cause landsliding, such as saturation, oversteepening, or removal of lateral support. Geotechnical materials testing and analysis performed prior to pump station construction included recommendations for slope construction and insured that the factors of safety in the engineered slope were within acceptable design standards and were determined to be capable of supporting the required loads. Based on stability analysis, various engineering elements are then incorporated into design of fill areas and engineered fill slopes. Therefore, considering analysis and design elements were incorporated into the facility design, the potential for slope failure would be considered a less than significant impact at the Hercules Pumping Station.

b) Fuel oil transport and operation of the Hercules pump station would not result in soil erosion or loss of topsoil. Construction activities associated with installation of the pipeline replacement section would involve trenching or boring, and could potentially result in soil erosion if exposed soils were subject to heavy winds or rains. The use of construction best management practices typically implemented as part of construction would minimize potential soil erosion to a less than significant level.

c) See discussion regarding Questions a-iii, a-iv, above.

d) **Impact VI.4: Portions of the 4,000-foot replacement section may be located in areas with expansive soils.**

Soil conditions would be assessed during the geotechnical investigation required by **Mitigation Measure VI.1**. Expansive soil conditions underlying the existing pipeline do not pose a concern because site geologic investigation and site preparation completed prior to construction of the pipeline was sufficient to eliminate or correct soil conditions that would have the tendency to harm the pipeline. Incorporation of geotechnical recommendations for the new 4,000-foot segment would reduce potential impacts associated with expansive soils.

Mitigation Measure: Incorporation of Mitigation Measure VI.1.

Significance after mitigation: Less than significant.

e) The project would not include the installation of septic tanks or alternative wastewater disposal systems.

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U.S. Geological Society (USGS) Working Group on California Earthquake Probabilities (WG99), *Earthquake Probabilities in the San Francisco Bay Region: 2000-2030 – A Summary of Findings*, Open-File Report 99-517, 1999.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VIII. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation on- or off-site?	☐	☒	☐	☐
d) 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 which would result in flooding on- or off-site?	☐	☒	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i) 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?	☐	☐	☐	☒
j) Inundation of seiche, tsunami, or mudflow?	☐	☐	☐	☒

SETTING

The approximately 35-mile pipeline is located in Contra Costa County, California and primarily follows the San Francisco Bay shoreline between the cities of Richmond and Pittsburg. All of Contra Costa County's water drains either directly or indirectly into the Bay-Delta system. Water from the western, urbanized portion of the County drains directly into San Francisco or San Pablo Bay, while that from the northern and eastern portions drain into Suisun Bay and the Delta river

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
IX. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☒	☐	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☒	☐	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☒	☐	☐

SETTING

The Pipeline is located primarily either within the Union Pacific Railroad right-of-way or within public street right-of-ways, and passes through the communities of Richmond, Hercules, Pinole, and Martinez, and unincorporated areas of Contra Costa County, including Rodeo and Crockett. The pipeline ranges in size from 12 inches to 16 inches.

The Hercules Pump station is located on 44.2 acres of land generally bounded by San Pablo Avenue, John Muir Parkway, I-80 and undeveloped lands to the north. The station includes aboveground storage tanks, transformers, underground containment tanks, and open water-holding evaporation ponds. The City of Hercules has initiated a process to adopt a Specific Plan that would encompass a discrete area north of and adjacent to the pump station, and that would also extend westward across San Pablo Avenue to San Pablo Bay. Currently designated for Planned Commercial Industrial uses, the City proposes to amend the General Plan so that the land can be used for residential and commercial uses, as well as construction of a new school. The City has completed an EIR on the proposed Specific Plan, but has not yet adopted it into the General Plan.

The proposed project consists of the sale of a pipeline and pump station that have not been in regular use for approximately 19 years, although the pipeline has been maintained to provide standby capability and has been used for emergency transmissions. Most of the pipeline is located with the Union Pacific Railroad right-of-way or public roadway right-of-ways.

CITY OF RICHMOND

The Richmond General Plan, adopted August 1994, governs land use designations in the City of Richmond. A segment of the project's pipeline runs through the City of Richmond, originating in an area west of Castro Street, and travelling along Castro Street to the Richmond Parkway, where it moves north, crosses Castro Street and enters the Union Pacific Railroad right-of-way. The pipeline initially passes through land designated by the Richmond General Plan as *Heavy*

Industry. The General Plan describes *Heavy Industry* as a land use that "accommodates a wide variety of industrial uses including, but not limited to, oil refining, contractors' storage yards, warehouses, machine shops, co-generation plants, and other 'heavy' industrial type uses. Most patently obnoxious uses are in this category and require conditional use permits" (p. LU-8).

As the pipeline crosses Richmond Parkway and enters the Union Pacific Railroad right-of-way, it enters land designated by the General Plan as *Light Industry*, which permits industrial office/flex uses, and "warehousing, distribution centers, commercial nurseries and related establishments which have limited external impact on the surrounding area" (p. LU-7). Moving further to the north, for a short period the pipeline borders lands designated *Low Density Residential* near the North Richmond area, or lands to be used for single-family residences, townhouses and duplexes. However, the pipeline and the railroad right-of-way remain primarily in lands designated for either *Light Industry* use or *Heavy Industry* use until crossing Rheem Creek.

At Rheem Creek, the land use designations become more diverse and as the pipeline and the railroad right-of-way move northward and then northeastward, adjacent land uses include:

- *Industrial/Office Flex,*
- *Light Industry*,
- *Low Density Residential* (Parchester Village area),
- *Preservation/Resource Area*, *Recreation Lands* (Pt. Pinole Regional Shoreline Park),
- *Public & Institutional* (West County Detention Facility), and
- *Regional Office/Shopping* (with lands designated for *Light Industry* and *Heavy Industry* on the other side of the tracks).

As the pipeline leaves the City of Richmond, the pipeline leaves the Union Pacific right-of-way and parallels Cypress Avenue along the western edge of the City of Pinole, further inland than the railroad right-of-way.

For just over a mile, in a northern section of the City of Richmond, the Union Pacific right-of-way and the pipeline form the western boundary of the North Richmond Shoreline Specific Plan area. Adopted in June, 1993, the North Richmond Shoreline Specific Plan's land use goals are intended to "provide fuller utilization of the plan area for a range of land uses, with emphasis given to employment-generating uses, recreational uses, and preservation of natural resource areas" (p. 22). The Plan's objectives include "[e]ncouraging the continuation of those existing industrial and commercial uses in the plan area which contribute to the achievement of city and county land uses and economic goals" (p. 22). The railroad right-of-way and the pipeline border lands designated by the Specific Plan as:

- *Heavy Industrial* (southern portion of Specific Plan area, below Richmond Parkway),
- *Office/Industrial Flex* (mid-portion of the Specific Plan area near the railroad tracks, including a portion of Rheem Creek), and

- *Natural Conservation Area* (northern portion of the Specific Plan area, including Giant Marsh, the Model Airplane Field and the southern portion of the Point Pinole Regional Park).

The Richmond General Plan contains policies that guide development in the City of Richmond. The following policies are relevant to the pipeline:

North Richmond Shoreline Specific Plan:

6. Recognize the unique character of the North Richmond Shoreline Area and guide development of the area in a manner that improves its overall image benefits community residents and allows for a reasonable level of development within a framework of conservation and public access to the Bay.

Safety Element:
SF-B Minimize the risks to people, property and the environment due to fire hazards and the use and storage of hazardous materials.

The Richmond Zoning Ordinance, adopted January 1, 1997, also places the pipeline adjacent to or within several zoning districts. Section 15.04.015 *Interpretation – Purpose and Conflict* of the Zoning Ordinance (p. 12) states:

A. In interpreting and applying the provisions of this chapter, they shall be held to be the minimum requirements for the promotion of the public health, safety, comfort, convenience and general welfare.

B. It is not intended by this chapter to interfere with or abrogate or annul any easement, covenant or other agreement between parties.

C. Where this chapter imposes a greater restriction upon the use of buildings or land, or upon the height of buildings, or requires larger open spaces than are imposed or required by other laws, rules, regulations, or by easements, covenants or agreements, the provisions of this chapter shall control.

The pipeline passes through or is adjacent to the following City of Richmond zoning districts:

- *SFR-3 Single Family – Low Density* (north of the intersection of Richmond Parkway and Castro Street; south of the North Richmond area);

- *M-3 Heavy Industrial* (east and west of the tracks north of Maas Avenue; northern tip of the City of Richmond);

- *M-2 Light Industrial* (east of the tracks bordering the City of San Pablo);

- *M-1 Industrial/Office Flex* (west of the tracts, also north of Maas Avenue; and north of Rheem Creek);

- *CRR Community & Regional Recreational* (west of the tracks, near Rheem Creek; west of Parchester Village; and the Point Pinole Regional Shoreline Park area);

- *C-3 Regional Commercial* (adjacent to the Richmond Parkway, between the west side of the tracks and the Point Pinole Regional Shoreline Park area); and

- *PA Planned Area* (northern tip of the City of Richmond, south side of the tracks.

The City of Richmond considers a pipeline to be a conditional use, and the pipeline has a Conditional Use Permit. Section 15.04.910.070 of the Zoning Ordinance states that "[a] Conditional Use Permit and its conditions shall be recorded by the applicant and run with the land. An endorsed copy of the recorded CUP shall be kept on file at the Planning Department" (p. 192). As an existing use, the pipeline can be used at any time (Jacobson, 2001).

CITY OF PINOLE

The Pinole General Plan, adopted in 1995, governs land use designations in the City of Pinole. The pipeline runs along the western edge of the City of Pinole, within Pinole's sphere of influence, outside of the Union Pacific right-of-way, and parallel to Cypress Avenue. The pipeline re-enters the Union Pacific right-of-way along the eastern edge of Wilson Point Park and continues east through the northern edge of the City of Pinole. The pipeline passes through lands designated by the City of Pinole's General Plan as:

- *Public Facilities* (Seaview Elementary School, located south of the City of Pinole, within Pinole's sphere of influence on the inland side of the tracks);

- *Low Density Residential* (located on the inland side of the tracks; includes residential development and treatment plants);

- *Parks and Recreation* and *San Pablo Bay Conservation Area* (Wilson Point Park, located on both sides of the tracks, along the eastern side of the City of Pinole within the Pinole sphere of influence; San Pablo Bay Regional Park, in northern Pinole, mostly on the Bay side of the tracks; Bayfront Park, located in northwestern Pinole on the Bay side of the tracks).

The Pinole General Plan contains policies that guide development in the City of Pinole. The following policies are relevant to the pipeline segment in the City of Pinole.

Policy LU7.8: Use of Railroad Right-of-Way. Ensure that new land uses will be designed to be compatible with potential future use of the railroad corridor as a more heavily used transitway through noise attenuation, setbacks, and appropriate access. Evaluate surplus right-of-way for appropriate uses that are compatible with being located near the railroad right-of-way.

Policy LUIP-22: Coordination with the Railroads. Contact the Atchison Topeka and Santa Fe and Southern Pacific railroads about the potential to develop unused railroad right-of-way and modify the land use map to reflect desired land use designations.

The City of Pinole's Zoning Ordinance replicates the land uses designated by the General Plan, and none of the land uses specifically permit a pipeline. The pipeline would likely be considered

under Section 17.36 *Special Uses* (Dowswell, 2001), and the City of Pinole probably granted a use permit for the pipeline at some point in the past (Dowswell, 2001). The City of Pinole is concerned only that the pipeline not interfere with the San Francisco Bay Trail, which will also use the Union Pacific Railroad right-of-way in the Pinole area. (Dowswell, 2001).

CITY OF HERCULES

The City of Hercules General Plan governs land use designations in the City of Hercules. A segment of the project's pipeline runs through the City of Hercules and the project's pump station is also located within the City of Hercules along the east side of San Pablo Avenue. The pump station is located on land designated by the General Plan for industrial use. Industrial uses are "intended to accommodate heavy industrial uses, refineries, and storage facilities along with light manufacturing use and other light industrial uses related to evolving technologies, research & development, communications, and information processing." The General Plan also states: "The designation is to provide an opportunity for industrial uses to concentrate for the efficiency of larger industries and to allow for buffers from sensitive residential and public uses in a manner that does not expose residents to significant environmental risk" (p. 11-32).

The pipeline enters the City of Hercules from the City of Richmond in the Union Pacific right-of-way until it leaves the right-of-way, and runs underground in a southeast direction through developed and undeveloped lands, crossing Linus Pauling Drive and Alfred Nobel Drive to the pump station. The pipeline passes alongside lands designated *Public-Park* (San Pablo Bay Regional Park), *Waterfront Commercial*, *General Commercial*, and *Planned Office – Research and Development*, and *Specific Plan*.

The pump station is also located in the City of Hercules, in an area designated by the City of Hercules General Plan as *Industrial*, and is adjacent to an area designated ~~*Planned Commercial Industrial*~~ *Specific Plan*. From the pump station, the pipeline is located underground within the San Pablo Avenue right-of-way, passing areas on the west side of San Pablo Avenue that are designated *General Commercial*, *Planned Office – Research and Development*~~, and *Industrial*~~, and *Specific Plan*. ~~Industrial uses are "intended to accommodate heavy industrial uses, refineries, and storage facilities along with light manufacturing use and other light industrial uses related to evolving technologies, research & development, communications, and information processing." The General Plan also states: "The designation is to provide an opportunity for industrial uses to concentrate for the efficiency of larger industries and to allow for buffers from sensitive residential and public uses in a manner that does not expose residents to significant environmental risk" (p. II-32).~~

The General Plan contains the following policy relevant to the pipeline and pump station:

Policy 13A: Create a transition between residential neighborhoods and commercial/industrial areas, except where such mixed uses are desirable (e.g. live/work space and other designated areas). Land uses must minimize adverse impacts, and those that would not negatively impact adjoining properties should be encouraged.

~~The City of Hercules has initiated a process to adopt a Specific Plan that would encompass a discrete area north of and adjacent to the pump station, and that would expand across San Pablo Avenue to San Pablo Bay. Currently designated for Planned Commercial Industrial uses, the City proposes to amend the General Plan so that the land is designated *Specific Plan*, with residential and institutional uses.~~ The project site is zoned *Industrial*. ~~City also proposes to amend the Zoning Regulations so that t~~ The areas immediately adjacent to the pump station would be within *SP-R-MH Residential Medium High Density* and *SP-R/RF Retail/Residential Flex* zoning districts~~zones~~. Further north, portions of ~~the site would be~~ adjacent lands are zoned *SP-S School* and *SP-R-Z Residential Z-Lot*.

The General Plan and Zoning Ordinance were amended specifically for the New Pacific Properties project, which anticipates construction of an estimated 763 single-family homes, 117 multi-family units, 65,000 sq. ft of residential/retail flex, an elementary school, parks, trails and roadways. The New Pacific Properties project flanks San Pablo Avenue, and consists of two subareas: the coastal subarea, located west of San Pablo Avenue, and the inland subarea located east of San Pablo Avenue. The inland subarea is located adjacent to the pumping station, and would include mixed uses, the elementary school, and the more dense single-family development areas.

The City of Hercules issued a limited use permit for the pump station and the pipeline in August 1976. The permit states that "[s]torage of liquids other than residual fuel oil and displacement oil as described in the project Environmental Impact Report must be approved by the City Council of the City of Hercules" (City Council Resolution, August 9, 1976). Under the Hercules Zoning Ordinance, industrial uses are reserved for "appropriately located areas for heavy and light industrial uses consistent with the General Plan and the character of Hercules"; and are to "[p]rovide an opportunity for industrial uses to concentrate for the efficiency of larger industries and to allow for buffers from sensitive residential and public uses in a manner that does not expose residents to significant environmental risk" (p. 29).

CONTRA COSTA COUNTY – UNINCORPORATED AREAS

The Contra Costa County General Plan, as amended to 1995, governs land use designations in unincorporated areas. After the pipeline leaves the City of Hercules, it enters unincorporated areas of Contra Costa County and the community of Rodeo via Parker/San Pablo Avenue. The pipeline continues in the Parker/San Pablo Avenue right-of-way to Crockett, where the pipeline passes under Crockett streets along the Carquinez Strait. As San Pablo Avenue crosses I-80, the pipeline re-enters the Union Pacific Railroad right-of-way. The Union Pacific Railroad tracks and the pipeline flow the coast through the Carquinez Strait Regional Shoreline Park, through Port Costa, to the City of Martinez. After it leaves the City of Martinez, the pipeline passes under I-680 (at the Benicia Bridge) and into the City of Pittsburg.

The Contra Costa County General Plan designates land use in unincorporated areas, including Rodeo, Crockett, Port Costa and the Port Chicago area. These land uses include:

- *CO – Commercial* (as San Pablo Avenue enters Rodeo from Hercules;
- *SH – Single Family Residential, 5 to 7.2 units per acre* (as San Pablo Avenue enters Rodeo from Hercules, throughout Rodeo);
- *PS – Public/Semi-Public* (along San Pablo Avenue near the Library; near the intersection of San Pablo Avenue and I-80);
- *PR – Parks and Recreation* (near the northeastern edge of the Lone Tree Point Regional Shoreline; Carquinez Strait Trail at Cummings Skyway; Carquinez Strait Regional Shoreline Park; the Martinez Regional Shoreline Park; the Point Edith State Wildlife Area);
- *MH – Multiple Family Residential, High, 21 to 29.9 units per acre* (Rodeo, as San Pablo Avenue curves to the east; Crockett);
- *AL – Agricultural Lands* (south of San Pablo Avenue in western Crockett);
- *OS – Open Space* (north of San Pablo Avenue in western Crockett; areas along the shoreline between Crockett and Port Costa; areas northeast of Benicia along the shoreline; the Port Chicago area; the Bay Point Wetlands area near the Port Chicago Highway).

Contra Costa County permits underground pipelines in unincorporated street right-of-ways with an encroachment permit. Underground pipelines are permitted in the railroad right-of-way.[1] The pipeline owner would be required to apply for a CUPA permit and disclose the amount of hazardous material stored on-site, as well as provide updated contact information.

CITY OF MARTINEZ

The Martinez General Plan, as amended to January 1995, governs land use designations in the City of Martinez and in adjacent lands within its sphere of influence. Through the City of Martinez, the pipeline is located within the Union Pacific Railroad right-of-way through or adjacent to lands designated by the General Plan, as follows:

- *Open Space/Conservation Use Land* (including the Carquinez Strait Regional Shoreline Park; and the Martinez Waterfront/Regional Shoreline Park);
- *Industrial* (lands located along the shoreline between Shell Dock and I-680); and
- *Retail and Services* (lands located inside the northwestern boundary).

The pipeline and the Union Pacific Railroad right-of-way pass through several zoning districts, governed by the City of Martinez Zoning Ordinance, including the following:

- *OS-P, Open Space – Prezoned District* (along the eastern boundary of the City of Martinez, within the City's sphere of influence);

[1] Contra Costa County indicates that it would require a formal letter and a $200 fee for a determination of whether the project would require any applications (Allen, 2001).

- *M OS/RF, Mixed Use District – Open Space/Recreational Facilities* (areas along the shoreline in northern Martinez; area along Alhambra Creek);
- *OS, Open Space* (cemetery south of the tracks in northeastern Martinez;
- *L-1, Light Industrial* (areas immediately adjacent to the tracks in northeastern Martinez);
- *H-1, Heavy Industrial* (areas adjacent to the tracks in areas northwest of Martinez, within its sphere of influence);
- *ECD-H-1, Environmental Conservation District-Heavy Industrial* (areas adjacent to the tracks northwest of Martinez, within its sphere of influence).

CITY OF PITTSBURG

The Pittsburg General Plan, dated September 1988, governs land use designations in the City of Pittsburg and in adjacent lands within its sphere of influence. In addition, Pittsburg is currently circulating an Environmental Impact Report (EIR) on its proposed General Plan 2020 that would replace the 1988 document.

The Union Pacific Railroad right-of-way and the pipeline enter the City of Pittsburg's sphere of influence and skirts the northeastern perimeter of the City of Pittsburg, ending in an area just north of the City of Pittsburg and southwest of the Pittsburg Power Plant. The right-of-way passes through wetland areas, designated by the General Plan as the Northwest River Area, a Special Management Area, also designated as a UT - Utility area. As stated in the General Plan, the UT – Utility designation "[i]ncludes the area of the PG&E power plant, the City and County sewer facilities, and facilities owned by the City water district and private water companies" (p. 16).

The Pittsburg General Plan designates the Northwest River Area as a subarea for which a specific Plan should be prepared (p. 11) as appropriate. The Plan states: "The Plan designates sufficient industrial land to allow existing industrial uses to be continued and expanded. The riverfront area includes PG&E's large holdings and power plan, which are designated as Utility on the Plan. Large areas of the riverfront are designated as Open Space for the preservation of the [sic] major natural resources, including large areas of environmentally sensitive wetlands found in that area" (p. 11).

The Pittsburg's proposed *General Plan 2020* would designate the area near the PG&E Power Plan as *Utility*, but would change the designation of the eastern portion of the *Utility* area to *Open Space*.

The pipeline appears to be outside of the boundaries of the City of Pittsburg, and therefore is outside the boundaries of the City of Pittsburg Zoning Map (Sheet No. 15).

REGIONAL PLANS

The pipeline also runs through several regional planning or project areas, including the San Francisco Bay Trail, and areas within the jurisdiction of the Bay Conservation Development Commission (BCDC).

San Francisco Bay Plan. The San Francisco Bay Plan is maintained and administered by BCDC as part of the McAteer-Petris Act adopted in 1969. The objectives of the Bay Plan are to "[p]rotect the Bay as a great natural resource for the benefit of present and future generations" and to "[d]evelop the Bay and its shoreline to their highest potential with a minimum of Bay filling. BCDC's jurisdiction extends to all areas in the San Francisco Bay subject to tidal action; all shoreline areas within 100-feet of the Bay; all diked salt pond or managed wetlands maintained between 1966 and 1969; and specific waterways.

In addition, BCDC controls all dredging and fill in the San Francisco Bay.

The San Francisco Bay Plan states that "Pipeline terminal and distribution facilities near the Bay should generally be located in industrial areas but may be located elsewhere if they do not interfere with, and are not incompatible with, residential, recreational, or other public uses of the Bay and shoreline." The Plan also states: "Types of development that could not use the Bay as an asset (and therefore should not be allowed in shoreline areas) include: (a) refuse disposal (except as it may be found to be suitable for an approved fill); (b) use of deteriorated structures for low-rent storage or other nonwater-related purposes; and (c) junkyards."

The pipeline appears to be within BCDC's jurisdiction in areas of North Richmond (also subject to the North Richmond Shoreline Plan), Crockett (unincorporated Contra Costa County), in the City of Martinez and in areas near the Pittsburg Power Plant (unincorporated Contra Costa County). In the North Richmond area, the pipeline passes through lands designated by the San Francisco Bay Plan as Waterfront, Park, Beach and Tidal Marsh. Land in the Crockett and Martinez area appears to be subject to tidal action.

SAN FRANCISCO BAY TRAIL PLAN

Senate Bill 100, passed in 1987, authorized the Association of Bay Area Governments (ABAG) to develop a plan and alignment for the San Francisco Bay Trail. The San Francisco Bay Trail Plan, adopted by ABAG in 1989, includes a proposed alignment. The Plan is dependent on local jurisdictions for implementation.

The proposed alignment of the Bay Trail appears to either cross or share the right-of-way with the pipeline in the Hercules and Pinole area. In the cities of Hercules and Pinole, the proposed alignment of the Bay Trail follows San Pablo Avenue, as well as the Union Pacific Railroad right-of-way.

LAND USE IMPACT DISCUSSION

a) The pump station and the pipeline are existing structures that have not been deactivated, but that have been maintained in standby condition, and have been used for emergency purposes. While operation of the pump station may result in additional noise or other impacts, the proposed project would not make any physical changes to the existing pump station structure. (The impacts of the project on noise and air quality levels are discussed in other sections of this Initial Study.)

The City of Hercules anticipates construction of residential and retail structures, and a school near the Hercules Pump Station. The EIR for the proposed development project notes (p. 5.5-17):

> "The City shall condition approval of development proposals on the New Pacific Properties site on the provision of adequate buffers between proposed sensitive receptors on the site and existing or approved industrial uses on adjacent sites. Adequate buffers shall also be provided between such uses within the site. "Sensitive receptors" include but are not limited to residential, education and recreational uses. "Approved" refers to specific projects that have been approved, specific uses that have been approved as part of an overall development plan (such as a specific plan), or uses that may be developed "by right" on a parcel without additional discretionary approvals. The width of the buffers shall be determined on the basis of information regarding the types of uses, the hazardous materials handled and wastes generated, environmental conditions (wind pattern, surface and ground water flows, soil characteristics, any reported contamination and status of remediation). The width of the buffers shall be intended to avoid significant environmental impacts."

The area nearest the pump station would be developed for multi-family and retail uses, while a potential school site has been identified toward the center of the Specific Plan area, accessible from San Pablo Avenue. However, as noted above, proposed development would require adequate buffers between adjacent industrial uses and any development in the Specific Plan area. The existing Richmond to Pittsburg Fuel Oil Pipeline does not cross the proposed development site, but is located within the San Pablo Avenue right-of-way. West Contra Costa Unified School District's school siting requirements would require that the school be set back from the fuel line easement, which includes the entire Pump Station site (see *New Pacific Properties Specific Plan Draft Environmental Impact Report*, Appendix 1.0).

The existing pipeline runs through or adjacent to several residential areas along the public right-of-way, and along the railroad right-of-way throughout Contra Costa County, established when the pipeline was operational. After pipeline and pump station operations are recommenced, the project would not constitute a physical barrier to established or contemplated communities.

Impact IX.1: Construction of the 4,000-foot replacement section of the pipeline in the City of Martinez may temporarily restrict access to the Martinez Regional Shoreline Park. This could be a potentially significant impact.

Implementation of mitigation measures I.1 and IV.2 would assure that construction of the replacement section of the pipeline would not result in a physical barrier to the Park.

Mitigation Measure: Implement Mitigation Measures I.1 and IV.2.

Significance after mitigation: Less than significant.

Impact IX.2: Maintenance of the pipeline could potentially limit access to the San Francisco Bay Trail because of a lack of alternative space. This could be a potentially significant impact.

In some areas, the pipeline may be very close to or include a small portion of the San Francisco Bay Trail in the area near the City of Pinole's city limits. The following mitigation measure would assure that the Trail remains accessible during any potential maintenance operations. Mitigation measure IX.2 would lessen the potential for the project to create a physical barrier between the project and the San Francisco Bay Trail to a less than significant level.

Mitigation Measure IX.2: For all maintenance activities that could disrupt use or enjoyment of the San Francisco Bay Trail, SPBPC shall coordinate such maintenance efforts with the Association of Bay Area Governments (ABAG) and the ~~City of Pinole~~ relevant jurisdiction in which the Pipeline is located. The purchaser shall assure that access to the Bay Trail remains open to the maximum extent possible, and that if necessary, a clearly marked, comparable alternative route is provided on a temporary basis.

Significant after mitigation: Less than significant.

b) The proposed pipeline would not substantially conflict with land uses designated by local General Plans and Zoning Ordinances. The pipeline is an existing use that has not been used on a daily basis, but has been used intermittently and has been regularly maintained in standby condition. In general, the path of the existing pipeline was designed to skirt existing development as much as possible, and is located within an existing right-of-way. The proposed replacement section in Martinez skirts development completely, and its construction is compatible with local plans and zoning ordinances. In general, the existing pipeline and the proposed replacement section passes through industrial and commercial areas and alongside existing unpopulated open space areas. When the pipeline does briefly pass through residential areas, these residential areas are also located in close proximity to

existing storage tanks and/or refineries (as in Crockett and unincorporated areas of Contra Costa County, outside of Hercules and Pinole).

The City of Hercules has indicated that it based its decision to designate land for a new school on its understanding that the pump station would eventually be demolished (Fleischer, 2001). However, the City of Hercules Specific Plan EIR states:

> The industrial uses adjacent to the project do not require any additional buffer measures. The North Shore Business Park adjacent to the coastal subarea is zoned for Planned Office-Research & Development Mixed use, and is subject to zoning ordinance performance standards that prohibit new uses that generate substantial safety or toxic or hazardous material impacts. . . . The PG&E property adjacent to the inland subarea contains an idle facility for transfer and storage of petroleum products. There are no hazardous or acutely hazardous materials or hazardous wastes present at the business park facilities or the PG&E property in quantities that would require a special buffer. The current and any future tenants of the business park and PG&E property are also subject to strict hazardous materials management programs.

Based on an analysis of the project and adjacent uses, the types of buffers, setbacks and design features already incorporated into the Hercules Pump Station site design could allow the City to site the school without violating state school siting regulations or the city's General or Specific Plans.

The school siting criteria used by the West Contra Costa Unified School District would not specifically prohibit the proposed location of the school, but would require adequate setbacks and buffers, as well as safety precautions. The school site could also be exchanged with other potential land uses within the Specific Plan area.

BCDC would likely require SPBPC to obtain an amended permit for construction of the replacement section, and would require a construction period that would protect endangered species, measures to prevent non-native species, a site restoration and monitoring plan, and adequate safety measures (Fleischer, 2001).

Impact IX.3: The pipeline may be located under a portion of the San Francisco Bay Trail. This could be a potentially significant impact.

Mitigation Measure: Implement Mitigation Measure IX.2.

While the pipeline may be located under a portion of the San Francisco Bay Trail, **Mitigation Measure IX.2** would lessen any potential conflict between maintenance operations and use of the Bay Trail.

Significance after mitigation: Less than significant.

The proposed project would therefore not conflict substantially with applicable land use, plans and policies adopted for the purpose of avoiding or mitigating and environment effect.

c) As discussed in Section IV, *Biological Resources*, above, the project would not conflict with any Habitat Conservation Plans.

Impact IX.4: Construction of the pipeline replacement section in Martinez has some potential for conflict with a natural community conservation plan. This could be a potentially significant land use impact.

Mitigation Measure: Implement Mitigation Measure IV.1.

Significance after mitigation: Less than significant.

REFERENCES

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channels, eventually flowing in San Pablo and San Francisco Bays. The south-central portion of the County is within the Alameda Creek drainage basin, which drains south to Alameda Creek and then west to San Francisco Bay. The San Francisco Bay Delta system (including San Pablo Bay) is generally regarded as the most important water body in the California. It is used extensively for both recreational and commercial purposes, and supports diverse flora and fauna. Water from about 40 percent of land in California drains into the Bay and comprises most of the State's agricultural and urban supplies.

Substantial areas within Contra Costa County are subject to flooding. According to records maintained by the Federal Emergency Management Agency (FEMA), the majority of the County's creeks and shoreline areas lie within the 100-year flood zone, an area subject to flooding in a storm which has a 1% annual probability of being equaled or exceeded. In the West and Central County, these areas include portions of the shoreline in the vicinity of Richmond, Hercules, Rodeo, Crockett, and Martinez.

The pipeline crosses several creeks and associated watersheds, most of which flow northward or westward and drain into San Pablo Bay and Suisun Bay. Historically, this area included extensive marsh plains that fringed the bay. However, street and railroad construction, as well as channelization, damming, and realignment of creeks have drastically altered the natural drainage patterns. Industrial and commercial facilities now occupy large areas of former marsh.

RICHMOND

Wildcat Creek and San Pablo Creek drain large areas of the Berkeley hills and empty into saltwater marshes of San Pablo Bay. Wildcat Creek enters the Castro Creek channel before it empties into San Pablo Bay. San Pablo Creek has its own outlet into the bay. The pipeline crosses under San Pablo Creek and Wildcat Creek approximately 1.5 miles from their respective outlets into Suisun Bay. The pipelines at both crossing are at sufficient depth to have no impact on the flow in the creeks.

PINOLE

The major watershed in Pinole is Pinole Creek. This creek generally parallels the route of Pinole Valley Road and Tennent Avenue. The pipeline crosses under the creek approximately 0.25 mile from the creek's outlet into Suisun Bay. The pipeline is buried at sufficient depth to have no impact on the flow in the creek.

HERCULES

Refugio Creek is the major watershed crossed by the pipeline in Hercules. Pinole Creek and Rodeo Creek also drain small portions of the area surrounding the pipeline, near the southern and northern city boundaries, respectively. The pipeline crosses under Refugio Creek at its outlet into Suisun Bay. The Hercules Pump Station is located approximately 0.1 mile from Refugio Creek. The pipeline is buried at sufficient depth to have no impact on the flow in the creeks.

The area surrounding the pump station is primarily paved with concrete or asphalt and includes small patches of graveled areas. The existing drainage system for the pump station is comprised of diked catch basins, drainage channels, and an impounding basin, lined with an impermeable material to prevent oil seepage into the soil and into the groundwater. This system is the secondary containment for the oil and fuel tanks. Runoff enters the impounding basin and if an oily residue is present, the oil and water are separated, the oil is discharged into a concrete-lined pit, and the remaining water is discharged into two holding/evaporation ponds. Surface water runoff from the pump station is minimal and flows to the existing drainage system.

MARTINEZ

Alhambra Creek is the major drainage system crossed by the pipeline in Martinez. This creek is an intermittent stream draining 15.1 square miles of generally rugged topography. The creek headwaters are located in Briones Regional Park and the creek outlets into Carquinez Strait. The 4,000-foot pipeline replacement section may be installed under Alhambra Creek approximately 0.5 mile from its outlet into Carquinez Strait, where the topography is tidal estuary. It will be buried at sufficient depth to have no impact on the flow in the creek. Water levels rise and fall in the creek in response to tides in Carquinez Strait. The 4,000-foot pipeline replacement section crosses a minor drainage of Alhambra Creek that has associated wetland vegetation.

PITTSBURG

In Pittsburg, the major watershed crossed by the pipeline is Lawlor Creek, which drains into Suisun Bay approximately 0.75 mile from the pipeline crossing. Most runoff is conveyed by natural channels except for storm drains located in developed areas and culverts under Highway 4. The Kirker Creek watershed, which encompasses 14.6 square miles, is east of the Pittsburg Power Plant. This creek drains into the New York Slough approximately 3.5 miles from the power plant. The existing drainage system for Kirker Creek is largely composed of open channels fed by a combination of street runoff and underground storm drains. The pipeline has been buried at sufficient depth to have no impact on the flow in the creeks, or storm drains.

REGULATORY SETTING

The California State Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, is the government agency responsible for protecting the health of the San Francisco Bay. A water quality control plan, or "basin plan," has been prepared to guide water pollution control activities in the Bay. The basin plan identifies the beneficial uses of the Bay that must be protected, including non-contact recreation; wildlife habitat; preservation of rare and endangered species; estuarine habitat; warm freshwater and cold freshwater fish habitat; fish spawning and migration; industrial service supply; navigation; and commercial and sport fishing.

Contra Costa County Flood Control and Water Conservation District administers flood and storm water throughout the county. The District develops drainage plans for entire watersheds that cross-jurisdictional boundaries.

HYDROLOGY AND WATER QUALITY IMPACTS DISCUSSION

a) The issues are limited to a) construction impacts resulting from the 4,000-foot replacement pipeline section, and b) draining and disposal of water treated with corrosion inhibitors from pipeline prior to use. Municipalities in the San Francisco Bay Area are required by the Clean Water Act to develop storm water management programs to control the discharge of pollutants from construction sites. Mitigation, in the form of following Best Management Practices for erosion and sediment control, will reduce construction impacts (see **Mitigation Measure VIII.1**). In addition, water drained from the pipeline may need to be treated prior to entering the waste stream. Implementation of the following mitigation measure will reduce the potential for the project to create significant impacts to hydrological resources during construction or dewatering activities.

Impact VIII.1: Construction of the 4,000-foot replacement pipeline section could result in erosion and sedimentation of storm water originating from the project site. Spills and leaks of oils or petroleum hydrocarbons from construction equipment could also adversely impact storm water quality.

Mitigation Measure VIII.1: SPBPC shall obtain coverage under the General Construction Activity Storm Water Permit issued by the State Water Resources Control Board and implement measures to prevent erosion and to control sediment and otherwise prevent stormwater pollution. The general construction permit requires the preparation and execution of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must identify appropriate stormwater pollution best management practices to reduce pollutants in stormwater discharges from the construction site both during and after construction. Measures and practices include, but are not limited to, the following:

<u>General Practices</u>

- **An environmental training program shall be conducted to communicate appropriate work practices, including spill prevention and response measures. Implementation of work practices should be monitored.**
- **All storm drains, drainage swales and creeks located along the 4,000-foot pipeline alignment shall be identified. All construction personnel and subcontractors shall be made aware of the locations of drainage pathways to prevent pollutants from entering them.**
- **Leaks, drips and other spills shall be cleaned up immediately.**
- **Protect all storm drain inlets using filter fabric cloth or other best management practices to prevent sediments from entering the storm drainage system during construction activities.**
- **Otherwise protect stormwater runoff from potential pollutant sources.**

<u>Erosion Prevention and Sediment Control</u>

- **To the extent possible, the area of construction shall be restored to preconstruction conditions.**
- **Mulching, seeding, and/or other suitable stabilization measures to protect exposed areas shall be implemented, during and after construction.**

- **Protect drainage courses, creeks, and catch basins with straw bales, silt fences and/or temporary drainage swales.**
- **Conduct routine inspections of erosion control measures especially before and immediately after rainstorms, and repair if necessary.**

General Site Maintenance

- **Designate specific areas of the construction site, well away from creeks or storm drain inlets, for auto and equipment parking and routine vehicle and equipment maintenance.**
- **Accidental releases of drilling mud shall be cleaned up immediately.**
- **Spill kits shall be maintained on site during the construction project for small spills.**

SPBPC shall submit all approved permits to the CPUC mitigation monitor prior to commencing construction of the replacement section. The CPUC mitigation monitor shall monitor compliance with these measures during construction of the replacement section in Martinez.

Significance after mitigation: Less than significant.

b) Usable groundwater resources are not extensive. The average depth to groundwater varies from 5 to 30 feet, and may be as close as 0.5 feet to 2 feet during the winter. Regionally, groundwater flow is in a northerly direction toward the San Pablo Bay and Suisun Bay. Neither PG&E nor SPBPC have proposed any activity that would affect quantity, quality or flow of groundwater resources. Therefore, the project will not impact groundwater supplies.

c) **Impact VIII.2: Construction of the 4,000-foot pipeline replacement section could change drainage patterns in project area resulting in increasing run-off.**

The proposed construction of the 4,000-foot replacement section could affect existing stormwater and non-stormwater runoff conditions. The planned boring activities associated with construction of the replacement section would not alter the course of any waterway, and use of standard boring and filling practices would not substantially alter existing drainage patterns along the replacement section. Any increase in runoff caused by construction activities would be minimal due to the limited size and temporary nature of construction.

Mitigation Measure: Implementation of Mitigation Measure VIII.1.

Significance after mitigation: Less than significant.

d) **Impact VIII.3: Construction of the 4,000-foot pipeline replacement section could alter drainage patterns, resulting in on- or off-site flooding.**

Mitigation Measure: Implementation of Mitigation Measure VIII.1.

Significance after mitigation: Less than significant.

e) Because the project would not involve any covering of permeable ground, it would not cause an increase in runoff. Therefore, the project would not create or contribute additional runoff water.

f) **Impact VIII.4: Construction activities could impact water quality of local creeks or infiltrate the soil.**

Construction could temporarily alter drainage patterns near these waterways and could result in siltation. In addition, the possibility of accidental release of drilling mud into waterways during drilling or boring activities could impact water quality.

Mitigation Measure: Implementation of Mitigation Measure VIII.1.

Significance after mitigation: Less than significant.

g) Although various segments of the pipeline alignment lie within a 100-year flood hazard area, no housing is proposed as a part of this project.

h) The lower reach of Alhambra Creek is tidally influenced. Floods occur along the lower reach of the creek primarily because of channel capacity, development in the flood plain, tidal backwater effects, and severe storms. Moderate storms, such as the five-year event, can also cause flooding in the lower portion of the creek. During moderate and severe storms, the Union Pacific Railroad crossing acts as a constriction to drainage, causing flooding. The creek does not flow during dry summer months.

The 4,000-foot pipeline replacement section would follow standard US Department of Transportation Office of Pipeline Safety practices and would be buried at least 6 feet below ground level, and therefore would not interfere with flood flows.

i) As explained in d), g) and h) above, the project would not substantially alter drainage, and would not be an impediment to flooding, and therefore would not expose people or structures to the possibility of flooding.

j) Because it is not located near any active or dormant volcano, and is located far from the ocean, the likelihood of inundation from seiche, tsunami, or mudflow is negligible.

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Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
X. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

SETTING

CONTRA COSTA COUNTY

Within unincorporated Contra Costa County, the only existing mineral resource near the Pipeline is located near Port Costa, approximately one mile west of the pipeline. This area has a long history of mining, which began at the turn of the century and included mining to support a brick manufacturing operation. Mining and brick production have been continuous from 1905 to the present, under several ownerships. A lightweight shale aggregate facility was also constructed in 1966. This operation is unique to the county and is one of only a few in the state. The mining area is still in use and is now surrounded by the Carquinez Strait Regional Shoreline Park (Contra Costa County, 1996).

CITY OF RICHMOND

Three unidentified parcels in west Richmond have been recognized in the Richmond General Plan as having mineral resources of statewide or regional significance. The mineral deposits on these parcels consist of sandstone and shale. Materials from this type of deposit can be used as construction material, such as Portland cement concrete, asphaltic concrete (blacktop), railroad ballast, stucco, and fill. The Pipeline is not located on any of these resources (City of Richmond, 1994).

CITIES OF PINOLE AND MARTINEZ

No mineral resources have been identified in the Pinole and Martinez areas, including the area surrounding the 4,000-foot replacement section (City of Martinez. 1995 and City of Pinole. 1995).

CITY OF HERCULES

No significant mineral deposits have been identified by the California Department of Conservation, Division of Mines and Geology for the Hercules area or in the vicinity of the Hercules Pump Station. However, Hercules does have areas that have been identified as

containing mineral deposits with a significance that cannot be evaluated from available data (these types of deposits are labeled "MRZ-3 zones"). According to the *Hercules General Plan,* the guidelines provided by the Surface Mining and Reclamation Act of 1975 state that for MRZ-3 zones:

Prior to permitting a use which would threaten the potential to extract minerals classified by the State Geologist as MRZ-3, the lead agency may cause to be prepared an evaluation of the area in order to ascertain the statewide or regional significance of the mineral deposits known or inferred to be located therein. The results of such an evaluation shall be transmitted to the State Geologist and to the State Mining and Geology Board for review and comment (City of Hercules. 1998).

MRZ-3 zones have been mapped for the hills to the north and south of Highway 4, east of Interstate 80 (I-80) (approximately two to three miles east of the pipeline), and the hilly area north of John Muir Parkway to the west of I-80 (on the north side of the Hercules Pump Station). However, according to the *Hercules General Plan*, "there is no information to suggest that these areas have extractable minerals of commercial value such that existing and planned land uses would be of less benefit to the community and region." (City of Hercules. 1998)

CITY OF PITTSBURG

According to the Pittsburg General Plan*,* the Division of Mines and Geology maintains data regarding current mineral resources in the San Francisco Bay Area. In Pittsburg, the pipeline is located in an area where adequate information has determined that no significant mineral deposits are present, or the resources have been judged unlikely to contain significant deposits (City of Pittsburg. 1988).

REGULATORY SETTING

State Regulatory Oversight

The primary State law concerning conservation and development of mineral resources is the California Surface Mining and Reclamation Act (SMARA) of 1975, as amended to date. SMARA is found in the California Public Resources Code (PRC), Division 2, Chapter 9, Sections 2710, *et seq*.

Depending on the region, natural resources can include geologic deposits of valuable minerals used in manufacturing processes and the production of construction materials. The Surface Mining and Reclamation Act (SMARA) was enacted in 1975 to limit new development in areas with significant mineral deposits. SMARA calls for the state geologist to classify the lands within California based on mineral resource availability. In addition, the California Health and Safety Code requires the covering, filling, or fencing of abandoned shafts, pits and excavations (Cal. Health & Safety Code §§ 24400-03.). Furthermore, mining may also be regulated by local government, which has the authority to prohibit mining pursuant to its general plan and local zoning laws.

SMARA states that the extraction of minerals is essential to the continued economic well-being of the State and to the needs of society, and the reclamation of mined lands is necessary to prevent or minimize adverse effects on the environment and to protect the public health and safety. The reclamation of mined lands will permit the continued mining of minerals and will provide for the protection and subsequent beneficial use of the mined and reclaimed land. Surface mining takes place in diverse areas where the geologic, topographic, climatic, biological, and social conditions are significantly different, and reclamation operations and the specifications therefore may vary accordingly. *PRC § 2711.*

Oil operations in California are regulated by the Division of Oil and Gas in the Department of Conservation (Cal. Pub. Res. Code § 3000 *et seq.*).

Local Regulatory Oversight

Contra Costa County

Contra Costa County has established mineral resource policies to ensure the continued viability of mineral extraction operations while minimizing impacts on surrounding land uses and the environment. The applicable policies are as follows:

8-56. Incompatible land uses shall not be permitted within the mineral resource impact areas identified as containing significant sand and gravel deposits. Incompatible uses are defined as land uses inherently incompatible with mining and/or uses that require a high public or private investment in structures, land improvements, and landscaping that prevent mining because of higher economic value of the land and its improvements (Contra Costa County, 1996).

8-57. Future development in the vicinity of valuable mineral resource zones shall be planned and designed to minimize disturbance to residential areas or other sensitive land uses, and to permit the safe passage of quarry trucks (Contra Costa County, 1996).

City of Richmond

The City of Richmond's General Plan contains the following policy that relevant to the extraction of locally important mineral resource:

Policy OSC-D4. Protect the mineral resources, which have been classified and/or designated mineral resources from urban encroachment and development incompatible with mining (City of Richmond, 1994).

City of Pittsburg

The City of Pittsburg, through its General Plan and Zoning Ordinance permits mining and mineral processing in Open Space districts. The city requires that a use permit be acquired prior to any mineral resource extraction and processing (City of Pittsburg. 1988).

MINERAL RESOURCES IMPACT DISCUSSION

a,b) According to available Division of Mines and Geology and Contra Costa General Plan Maps three areas located in Port Costa, the City of Richmond, and Hercules (near the existing Hercules Pump Station) have been identified as occupying significant or potentially significant mineral resources that are of value for both the state and the region. Each of these areas lies outside of the existing pipeline alignment and access to them would not be impaired as a result of the sale of the Pipeline. Additionally, no mineral resources are mapped in the vicinity of the 4,000-foot replacement section. Therefore, the sale of the Pipeline would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local General Plan Maps. Furthermore, the sale of the Pipeline would not result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist. As a result, no impact to existing mineral resources is expected through the sale of the Pipeline.

REFERENCES

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City of Pinole, 1995. City of Pinole General Plan.

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California Surface Mining and Reclamation Act (SMARA) of 1975, California Public Resources Code (PRC), Division 2, Chapter 9, Sections 2710, *et seq*.

Cal. Pub. Res. Code § 3000 *et seq*. California Public Resources code Section 3000.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XI. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

SETTING

Noise is defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound. Human response to noise is subjective and can vary greatly from person to person. Factors that can influence individual response include intensity, frequency, and time pattern of the noise; the amount of background noise present prior to the intruding noise; and the nature of work or human activity that is exposed to the noise. The adverse effects of noise include interference with concentration, communication, and sleep. At the highest levels, noise can induce hearing damage.

Environmental noise is usually measured in A-weighted decibels (dBA).[1] Environmental noise typically fluctuates over time, and different types of noise descriptors are used to account for this variability. Typical noise descriptors include maximum noise level (L_{max}), the energy-equivalent

[1] A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level") measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels.

noise level (L_{eq}), and the day-night average noise level (DNL).[2] The noise level experienced at a receptor depends on the distance between the source and the receptor, presence or absence of noise barriers and other shielding features, and the amount of noise attenuation (lessening) provided by the intervening terrain.

EXISTING NOISE LEVELS

Transportation sources, such as automobiles, trucks, trains, and aircraft, are the principal sources of ambient noise. Industrial and commercial equipment and operations also contribute to the ambient noise environment in their vicinities. The approximately 35-mile underground pipeline is located in Contra Costa County between the cities of Richmond and Pittsburg. The pipeline follows the San Francisco Bay shoreline and traverses the jurisdictions of the cities of Richmond, Pinole, Hercules, Martinez and Pittsburg. Between Richmond and Hercules the pipeline is located within or in close proximity to the UPRR right of way. Train pass-by events constitute the major noise sources along this section of the pipeline. According to the Contra Costa General Plan, noise levels generated by rail activities are approximately 70 to 77 dB at 100 feet from the railway centerline. At the pump station in Hercules, the noise environment is mainly influenced by traffic on nearby I-80 and San Pablo Avenue, both of which are characterized as major noise sources in the Contra Costa County General Plan. A noise measurement study conducted in the City of Hercules in December 1996 showed a L_{dn} of 65 dBA and L_{eq} of 61 dBA at a metering station located 90 feet from the centerline of San Pablo Avenue near Linus Pauling Drive, adjacent to the pump station. Traffic on San Pablo Avenue was the main source of noise.

SENSITIVE RECEPTORS

The 35-mile long pipeline alignment would cross though primarily non-residential land uses along its length. Some construction noise could be expected from the replacement of the 4,000-foot section in Martinez and from day-to day maintenance activities along the pipeline. Construction of the replacement pipeline in the City of Martinez would occur within land uses designated for industrial uses and as open space. There are no residential land uses adjacent to the construction area. However, one permanent source of noise is associated with the pump station in Hercules. The City of Hercules has initiated a process to adopt a Specific Plan that would encompass a discrete area north of and adjacent to the pump station, and that would expand across San Pablo Avenue to San Pablo Bay. Currently designated for Planned Commercial Industrial uses, the City proposes to amend the General Plan so that the land is designated *Specific Plan*, with residential and institutional uses. The City also proposes to amend the Zoning Regulations so that the areas immediately adjacent to the pump station would be within residential zones. Further north, portions of the site would also have residential and

[2] The maximum noise level (L_{max}) refers to the highest instantaneous noise level observed in a given period. L_{eq}, the energy-equivalent noise level (or "average" noise level), is the equivalent steady-state continuous noise level which, in a stated period of time, contains the same acoustic energy as the time-varying sound level that actually occurs during the same period. DNL, the day-night average noise level, is a weighted 24-hour noise level. With the DNL descriptor, average noise levels (in terms of L_{eq}) between 10:00 p.m. and 7:00 a.m. are adjusted upward by 10 dBA to take into account the greater annoyance of nighttime noise as compared to daytime noise. All L_{max}, L_{eq} and DNL values reported herein reflect A-weighted decibels unless stated otherwise.

institutional uses. These would be the sensitive receptors that could be most affected by the resumption of operations at the Hercules pump station.

REGULATORY SETTING

As a general matter, federal and state agencies regulate mobile noise sources, and local agencies regulate stationary noise sources and activities. Federal and state agencies regulate noise from mobile sources by establishing and enforcing noise standards on vehicle manufacturers. Local agencies regulate noise through three principal means: enforcement of local noise ordinances; implementation of noise-related policies contained in the local general plan, such as noise / land use compatibility guidelines; and enforcement of noise-related conditions on permit approvals.

The sale of the Pipeline, by itself will not result in any changes to the ambient noise environment. However, following completion of the sales transaction, the new owner (SPBPC) is expected to return the pipeline to active service. Construction hour limitations and construction equipment noise standards, as specified by the local General Plan Noise Element and Noise Ordinance would be applicable to construction activities along the missing 4,000-foot section of the pipeline in Martinez, which would be replaced. Transportation of oil would involve operation of a stationary noise source at the pump station, which would be located in the city of Hercules. Resumption of oil movements at the Hercules pump station will reactivate the existing noise source in the area, but the project would not require any local permits to which noise-related conditions could be attached. Other than that, conducting routine maintenance operations along the 35-mile pipeline would involve some minor and temporary noise sources and would not raise any long-term issues related to local noise ordinance standards or general plan policies. The relevant standards and policies for the applicable jurisdictions are provided below.

The noise element of the Contra Costa County General Plan does not have established noise standards for new projects. The county uses the State of California Land Use Noise Compatibility Matrix as shown in Table XI-1 for land use planning. The normally acceptable maximum noise level varies from a CNEL of 60 dBA for residential areas to 75 dBA for industrial land uses. After a detailed noise analysis has been conducted and required insulation features are included in the project design, the maximum conditionally acceptable noise level could be as high as 70 dBA for residential areas and 80dBA for industrial areas. Construction activities are required to be concentrated during daytime hours of the working day to provide relative quiet during the more sensitive evening and early morning periods.

The City of Richmond's General Plan has also adopted the State of California Land Use Noise Compatibility Matrix as a standard for reviewing projects. The matrix is as shown in Table XI-1. The city's noise ordinance restricts construction activities to daytime hours between 7 a.m. to 7 p.m. on weekdays and 8.30 a.m. to 6 p.m. on weekends and legal holidays. The ordinance also establishes maximum acceptable exterior noise levels, which range from 60 dBA for residential areas to 75 dBA for heavy industrial land uses, as measured at the property line, within the city of Richmond.

TABLE XI-1
STATE OF CALIFORNIA LAND USE NOISE COMPATIBILITY MATRIX

Land Use Category	Community Noise Exposure Ldn or CNEL, dB
Residential – Low Density Single Family, Duplex, Mobile Homes	50 to 60 = Normally acceptable 55 to 70 = Conditionally acceptable 70 to 75 = Normally unacceptable 75 to 85 = Clearly unacceptable
Residential – Multifamily	50 to 65 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 75 = Normally unacceptable 75 to 85 = Clearly unacceptable
Transient Lodging – Motels, Hotels	50 to 65 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70 = Normally acceptable 60 to 70 = Conditionally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly unacceptable
Auditoriums, Concert Halls, Amphitheaters	50 to 70 = Conditionally acceptable 65 to 85 = Clearly unacceptable
Sports Arena, Outdoor Spectator Sports	50 to 70 = Conditionally acceptable 70 to 85 = Clearly unacceptable
Playgrounds, Neighborhood Parks	50 to 70 = Normally acceptable 67.5 to 75 = Normally unacceptable 72.5 to 85 = Clearly unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75 = Normally acceptable 70 to 80 = Normally unacceptable 80 to 85 = Clearly unacceptable
Office Buildings, Business, Commercial and Professional	50 to 70 = Normally acceptable 67.5 to 77.5 = Conditionally acceptable 75 to 85 = Normally acceptable
Industrial, Manufacturing, Utilities, Agriculture	50 to 75 = Normally acceptable 70 to 80 = Conditionally acceptable 75 to 85 = Normally acceptable

The General Plan for the City of Pinole also uses the State of California Land Use Noise Compatibility Matrix (shown in Table XI-1) as a standard for reviewing projects. The goal for maximum outdoor and indoor noise levels in residential areas are an Ldn of 60 dBA and 45 dBA respectively.

The General Plan for the City of Hercules uses an Ldn of 60 dBA as the maximum acceptable outdoor noise level in residential areas. Table XI-2 shows Land Use compatibility matrix for community noise environments in the city of Hercules. Table XI-3 shows the maximum acceptable noise exposure to stationary noise sources as measured at the property line of the receiving land use.

TABLE XI-2
LAND USE COMPATIBILITY MATRIX FOR COMMUNITY NOISE ENVIRONMENTS IN THE CITY OF HERCULES

Land Use Category	Exterior Noise Exposure Ldn or CNEL, dB
Residential, Hotels, and Motels	50 to 60 dBA = Normally Acceptable 60 to 75 dBA = Conditionally Acceptable 75 to 85 dBA = Unacceptable
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds	50 to 65 dBA = Normally Acceptable 65 to 80 dBA = Conditionally Acceptable 80 to 85 dBA = Unacceptable
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches	50 to 60 dBA = Normally Acceptable 60 to 75 dBA = Conditionally Acceptable 75 to 85 dBA = Unacceptable
Office Buildings, Business Commercial and Professional	50 to 70 dBA = Normally Acceptable 70 to 80 dBA = Conditionally Acceptable 80 to 85 dBA = Unacceptable
Auditoriums, Concert Halls, Amphitheaters	50 to 70 dBA = Conditionally Acceptable 70 to 85 dBA = Unacceptable
Industrial, Manufacturing, Utilities, and Agriculture	50 to 70 dBA = Normally Acceptable 70 to 85 dBA = Conditionally Acceptable

The City of Martinez does not have a noise element in the General Plan. There are no specific construction-related noise standards in the Noise Ordinance. Therefore, the State of California Land Use Noise Compatibility Matrix as shown in Table XI-1 would be used as a standard for reviewing this project.

The City of Pittsburg uses the State of California Land Use Noise Compatibility Matrix (shown in Table XI-1) as a standard for reviewing projects. Stationary noise sources in Pittsburg are

TABLE XI-3
MAXIMUM ACCEPTABLE NOISE EXPOSURE TO STATIONARY NOISE SOURCES (MEASURED AT THE PROPERTY LINE OF THE RECEIVING LAND USE)

	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly Leq, dBA	50	45
Maximum Level, dBA	70	65
Maximum Level, dBA – Impulsive Noise	65	60

regulated through conditions of approval for local permits. With respect to noise / land use compatibility, the City recognizes 65 and 70 DNL as the maximum level of noise that is normally acceptable for residential and parks, respectively (City of Pittsburg, 1990). The City seeks to minimize noise impacts by protecting residential and park uses from new noise sources that would increase noise by 3 DNL or generate 60 DNL or more at the property line, excluding ambient noise levels.

NOISE IMPACT DISCUSSION

a) The project would involve temporary noise sources associated with construction and long-term noise sources associated with operation of the pump station at Hercules. Such noise sources are typically regulated on the local level through enforcement of noise ordinances, implementation of general plan policies, and imposition of conditions of approval for permits.

Construction of the 4,000-foot replacement pipeline in the City of Martinez would occur within land uses designated for industrial uses and as open space. There are no residential land uses adjacent to the construction area. During the construction period, noise levels generated by operation of construction equipment would vary depending on the particular type, number, and duration of use of various pieces of construction equipment. The types of equipment that would be used would include jackhammers, pneumatic tools, front-end loaders, hydraulic backhoes and excavators, air compressors and off-road trucks. Such equipment typically generates between 75 and 90 dBA at 50 feet (U.S. Department of Transportation, 1995) and would be a significant impact on the ambient noise environment. However, at any one location along the construction route, the duration of noise impacts would be relatively brief, given that construction would proceed in a linear fashion along the route.

As discussed earlier, the City of Martinez, in which pipeline replacement would occur, does not have specific construction-related noise standards. However, under the requirements of Mitigation Measure XI.1 below, SPBPC would require its contractors to limit noisy construction activity to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday. Given compliance with this and other mitigation measures described below, the impact

would be mitigated to a less than significant level and project construction would not expose persons to or generate noise levels in excess of standards established in local general plans or noise ordinances, or applicable standards of other agencies.

Over the long-term, the project would activate an existing noise source due to the resumption of operations at the existing pump station in the City of Hercules. The equipment associated with noise at the pump station includes two fuel oil heaters and two pumps. Once operations are recommenced, noise from the pump station would permanently increase the ambient noise level in the vicinity of the pump station, compared to the present baseline. The noise levels will be similar to those when PG&E operated the station. However, the pump station is located and has been approved for operation within an area designated for industrial use. Recently, the City of Hercules has initiated a process to adopt a Specific Plan that would encompass a discrete area north of and adjacent to the pump station currently designated for Planned Commercial Industrial uses. The City proposes to amend the General Plan and the Zoning Regulations so that the land is designated *Specific Plan*, with residential and institutional uses. This would introduce sensitive receptors in the immediate vicinity of the pump station that could potentially be affected by noise generated from equipment at the pump station.

However, the pump station is an existing structure approved for operation in its current location. The proposed operation of the pump station and the pipeline would not change the existing, undeveloped land in the City of Hercules in the vicinity of the project. Future development in the vicinity has not yet been approved and would be required to consider the existence of the pipeline and pump station, and any future operation. Operation of the pump station would not be in violation of the noise standards set forth in the General Plan for industrial land uses. Therefore the project would not expose persons to or generate noise levels in excess of standards established in the local general plan and consequently the impact would be less than significant.

Impact XI.1: Short-term construction-related activities and long-term operation of the pump station would expose persons to or generate noise levels in excess of applicable, established local regulations.

Mitigation Measure XI.1: During construction of the 4,000-foot replacement section in Martinez, the new owner (SPBPC) will implement the following measures:

- **Require construction contractors to limit noisy construction activity to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday~~Saturday~~, or more restrictive hours required by permits and ordinances ~~as specified by the City of Martinez~~.**

- **Obtain an encroachment permit from the City of Martinez specifying how construction would be sequenced to minimize potential construction impacts.**

- **Conduct regular equipment and maintenance and install mufflers (as appropriate) on all construction equipment to control noise.**
- **Shield and orient compressors and other small stationary equipment such that equipment exhaust would face away from noise sensitive buildings and land uses.**
- **Use existing natural and manmade features (e.g., landscaping, fences) to shield construction noise whenever possible.**

The CPUC's mitigation monitor shall ensure compliance with the above measures during construction.

Significance after mitigation: Less than significant.

b) The project would involve temporary sources of ground borne vibration and ground borne noise during construction from operation of heavy equipment and long-term sources during its operational phase from operation of pumps at the Hercules pump station. During construction of the 4,000-foot replacement section of the pipeline, operation of heavy equipment would generate localized ground borne vibration and ground borne noise that could be perceptible at any sensitive uses in the immediate vicinity of the construction route. However, because the pipeline replacement would take place in an area designated for industrial uses where there are no nearby receptors, and because the duration of impact at any one location would be very brief and would occur during less sensitive daytime hours, the impact from construction-related ground borne vibration and ground borne noise would not be significant.

Over the long-term, operation of the Hercules pump station could generate ground borne vibration and ground borne noise in the immediate vicinity. Because of the setbacks included in the original design of the pump station, ground borne vibration and ground borne noise from the operations at the station would not be perceptible by nearby sensitive receptors. Therefore, the impact would be less than significant and no mitigation is required.

c) As described under Impact a) the project would activate an existing source of noise at the Hercules pump station; because the pipeline is buried, and because fuel oil pipelines do not create audible sound during operations, noise at other locations along the existing pipeline route and the replacement section in Martinez would not increase as a result of recommencing operation of the pipeline. Although recommencing operations at the pump station would result in an increase in ambient noise levels at the site over existing conditions, this increase would be consistent with the ambient noise standards established by the City of Hercules for industrial land uses. Therefore, the impact would be less than significant and no mitigation is required.

d) The project would result in temporary and intermittent noise increases due to construction. The effect of this noise would depend upon how much noise would be generated by the equipment, the distance between construction activities and the nearest noise-sensitive uses, and the existing noise levels at those sensitive uses. Project construction would involve use of equipment that would typically generate noise levels in the 75 to 90 dBA range within 50 feet. The section of the pipeline that would be replaced would be predominantly located in areas designated for industrial uses and as open space.

However, with implementation of **Mitigation Measure XI.1** above, construction equipment would be well muffled and the residual impact of project construction would occur only during the less sensitive daylight hours, and thus would not disrupt sleep. This mitigation would reduce the potential to create a substantial temporary or periodic increase in ambient noise levels to a less than significant level.

Impact XI.2: Construction-related activities would lead to a substantial temporary or periodic increase in the ambient noise levels in the project vicinity above levels existing without the project.

Mitigation Measure: Implementation of Mitigation Measure XI.1.

Significance after mitigation: Less than significant.

e) The project is not located within two miles of a public airport and is not within an airport land use plan area.

f) The project is not located in the vicinity of a private airstrip.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XII. POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

SETTING

The Association of Bay Area Governments (ABAG) estimates that population growth in Contra Costa County, from 1990 to 2000, will exceed 17 percent. From 2000 to 2010, population growth will slow slightly to approximately 14 percent; and from 2010 to 2020, population growth will slow even further to approximately 8.5%. Population growth in the areas through which the pipeline passes is described in table XII-1.

TABLE XII-1
ESTIMATED POPULATION GROWTH
RICHMOND PIPELINE AREAS

Area	Percentage Increase in Population		
	1990-2000	2000-2010	2010-2020
Hercules[1]	15.2%	15.4%	17.0%
Martinez	15.4%	7.5%	3.9%
Pinole	4.8%	3.6%	2.1%
Pittsburg	9.4%	19.7%	13.4%
Richmond	9.6%	7.6%	4.7%
Rodeo-Crockett	10.3%	7.9%	4.4%
Contra Costa County	17.2%	14.3%	8.5%

1 Includes sphere of influence for all areas, except Rodeo-Crockett, which includes the subregions near both the unincorporated areas of Rodeo and Crockett.

SOURCE: Association of Bay Area Governments, *Projections 2000*; ESA

There are currently an estimated 353,983 housing units in Contra Costa County, with 65,708 housing units, or approximately 19 percent in unincorporated areas that include the communities of Rodeo and Crockett. The cities of Hercules, Martinez, Pinole, Pittsburg and Richmond contain

an estimated 82,473 housing units, or 23 percent of the housing stock in Contra Costa County. The average vacancy rate for Contra Costa County is approximately 5.09 percent, and the vacancy rate in unincorporated Contra Costa County is approximately 5.85 percent. Vacancy rates for the cities of Hercules, Martinez, Pinole, Pittsburg and Richmond range from 3.51 percent in Martinez to 6.38 percent in Pittsburg.

POPULATION AND HOUSING IMPACTS DISCUSSION

a) In most areas through which the pipeline passes, anticipated population growth is less than growth anticipated for the county. Anticipated growth in both Hercules and Pittsburg will keep pace with or exceed population growth rates throughout the county. Growth in the areas through which the pipeline passes are limited by local and regional general plans and other land use documents, which limit land density and the uses for which land can be put to use.

The Richmond pipeline and pump station are existing structures that have in the past and would in the future be used to transport fuel oil. While the pipeline has not been in regular use since 1982, the pipeline has been maintained to provide stand-by capability in case of natural gas supply interruptions or similar situations. As recently as 1991, the pipeline was used to transport natural gas. Following 1991, use of the pipeline has been limited to maintaining the integrity of the pipeline. A staff has remained at the Hercules pump station for testing and maintenance.

While use of the pipeline would likely be to transport fuel oil, the end of use of the fuel oil has not been determined. Given the current short supplies of energy producing fuel, the fuel would most likely be used to meet existing and current anticipated future demand for refinery operations, and emergency transport.

The Richmond pipeline and pump station would therefore not, of itself, induce population growth, directly or indirectly, but would most likely be used to meet current and currently the anticipated future demand estimated by ABAG.

b) See discussion for IX.b (Land Use), above. The existing Richmond pipeline currently passes underground, alongside some existing residential areas in the Richmond, Pinole, Rodeo and Crockett areas, within a railroad or public street right-of-way. In addition, in the City of Hercules, the pump station is located adjacent to an area for which the land use designation may be changed from *Planned Commercial Industrial* to residential uses. (See Section IX. *Land Use Plans and Policies*.)

However, the Richmond pipeline is located primarily within existing right-of-ways, underground, as an easement. The pipeline does not run under any space currently occupied by residential structures. Areas in which the pipeline is not within an existing right-of-way (particularly in Hercules where the pipeline leaves the railroad right-of-way and enters the pump station) are not designated for nor occupied by residential uses.

Although the pipeline may be used on a more regular basis, the pipeline would be one of several located within public right-of-ways, and would be set back from residential uses in the railroad right-of-way.

Only minor changes to the pipeline and pump station are anticipated as a result of the proposed project. The project would require construction in the City of Martinez to replace a missing segment of the pipeline, but the missing segment would be replaced along an existing right-of-way and along or under existing waterways. No housing would be displaced by the replacement.

The Richmond pipeline and pump station would therefore not require displacement of any existing housing.

c) See discussion for XII.a, above. No persons occupy structures located over the pipeline, or the 4,000-foot section that will be replaced. The proposed project would not result in either the displacement of residential structures or displacement of people.

REFERENCES

Association of Bay Area Governments, *Projections 2000*, December 1999.

City of Hercules, *Hercules General Plan*, [no date].

Contra Costa County, *Contra Costa County Population and Housing Estimates, January 1, 2000*, http://www.co.contra-costa.ca.us/depart/cd/recycle/population-housing.htm, accessed March 20, 2001.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIII. PUBLIC SERVICES				
a) **Would the project** result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☐	☒
ii) Police protection?	☐	☐	☐	☒
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☒	☐	☐
v) Other public facilities?	☐	☐	☐	☒

SETTING

FIRE PROTECTION

The pipeline and pump station are located in areas served by several fire protection and emergency medical response service providers.

The Contra Costa County Fire Protection District is governed by the Contra Costa County Board of Supervisors, and provides fire protection services to Antioch, Briones Hills, Clayton, Concord, Lafayette, the Mt. Diablo Area, Martinez, Oakley, Pleasant Hill, San Pablo, Walnut Creek, and nearby unincorporated areas. This District has over 30 stations; each station averages 2 to 4 engines and three firefighters, one of which is a paramedic. Stations 12, 13 and 14 are located in the City of Martinez and Station 70 is located in the City of San Pablo.

The Crockett-Carquinez Fire Protection District is governed by the Contra Costa County Board of Supervisors, and provides fire protection services and emergency medical response in the Crockett area, including the Port Costa area. Its station is located at 746 Loring Avenue, Crockett.

The Rodeo-Hercules Fire Protection District is an independent district that provides fire protection services and emergency medical response for the City of Hercules and the Rodeo area. Its station is located at 1680 Refugio Valley Road, Hercules.

The Pinole Fire Department provides fire protection services and emergency medical response to the City of Pinole and the Tara Hills area. It also provides back up for the adjacent cities of

Hercules, Crockett, Rodeo, San Pablo and Richmond. Its station is located at 880 Tennent Avenue, Pinole.

The Richmond Fire Department provides fire protection services and emergency medical response to the City of Richmond, and automatic mutual aid to the cities of El Cerrito, San Pablo, Pinole and El Sobrante. The Department is staffed by 97 firefighters and 6 non-sworn personnel, and equipped with seven engines, two trucks, two rescue vehicles, and a hazardous materials unit. The Department's headquarters are located at 330 – 25th Street, Richmond.

POLICE PROTECTION

The pipeline and pump station are located in the following police jurisdictions:

Agency	Local Address	Jurisdiction	Approximate Staffing Levels
Richmond Police Department	401 – 27th Street Richmond, CA	City of Richmond and sphere of influence	186 officers; 79 civilian personnel
Pinole Police Department	880 Tennent Avenue Pinole, CA	City of Pinole and sphere of influence	20 officers and personnel
Hercules Police Department	111 Civic Drive Hercules, CA	City of Hercules and sphere of influence	20 sworn personnel; 11 civilian personnel; 2 volunteers
Martinez Police Department	525 Henrietta Street Martinez, CA	City of Martinez and sphere of influence	61 staff, including sworn personnel, reserve officers, a SWAT team, and civilian personnel
Pittsburg Police Department	65 Civic Avenue Pittsburg, CA	City of Pittsburg and sphere of influence	70 sworn personnel; 22 civilian personnel
Military Traffic Management Command	U.S. Naval Weapons Station	Port Chicago	Unknown
California Highway Patrol	1501 Blum Street Martinez, CA (Part of Golden Gate Communications Center)	Statewide: traffic law information on freeways; dignitary protection; protection of State property	94 uniformed officers; 12 non-uniformed personnel
Contra Costa County Sheriff	651 Pine Street Martinez, CA	Unincorporated Contra Costa County	657 sworn personnel; 281 civilian personnel (eight stations)
East Bay Regional Park District Police Department	17930 Lake Chabot Road Castro Valley, CA	42,000 acres of District parks in Contra Costa County; 50,000 acres in Alameda County	55 sworn personnel, volunteers and civilian personnel

PARKS

The underground Richmond pipeline passes through and/or adjacent to the following public parks:

Park	Location (Jurisdiction)	Size	Location of Pipeline	Recreational Facilities
Bay Point Wetlands	Contra Costa County (near Port Chicago) (East Bay Regional Park District)	131 acres	Adjacent to the southern boundary	Not open to the public (tidal marsh)
Pt. Edith State Wildlife Area	Contra Costa County (near Port Chicago) (California Department of Fish and Game)	760 acres	Adjacent to the southern boundary	None
Carquinez Strait Regional Shoreline Park	Contra Costa County (Crockett) (East Bay Regional Park District)	2,795 acres	Adjacent to the western boundary of one portion of the park; through northern edge of second section of the park	Trails (hiking, bicycle, horseback riding)
Lone Tree Point Regional Park	Contra Costa County (Rodeo) (East Bay Regional Park District)	10 acres	Adjacent to the southeastern tip	Picnic facilities, open space
Martinez Regional Shoreline Park	Martinez (East Bay Regional Park)	344 acres	Adjacent to the southern boundary	Trails, marina, recreational facilities, play fields
Pt. Pinole Regional Shoreline Park	Pinole, Richmond and San Pablo (East Bay Regional Park District)	2,315 acres	Through the southwestern area, and adjacent to the southern boundary	Trails (hiking, bicycle, horseback riding, fishing pier)
San Pablo Bay Regional Shoreline Park	Contra Costa County, Pinole, Hercules (East Bay Regional Park District)	212 acres	Through three unconnected portions of the park	Open space
Shell Marsh	Contra Costa County (East Bay Regional Park District)	202 acres	Adjacent to the northern boundary	Not open to the public
Wilson Point Regional Park	Contra Costa County (near Pinole) (East Bay Regional Park District)	Less than 30 acres	Through the southern portion of the park, parallel to Cypress Avenue	Trails, beach
Lefty Gomez Ballfield Complex	Contra Costa County (Rodeo)	Less than 20 acres	Adjacent to the western boundary	Playing fields

Park	Location (Jurisdiction)	Size	Location of Pipeline	Recreational Facilities
Montara Bay Park and Community Center	Contra Costa County (near Richmond)	Less than 20 acres	Adjacent to the western boundary	Community center, play area

SCHOOLS

In Contra Costa County, public education for kindergarten through 12th grade is administered by 18 school districts in 232 schools that serve approximately 154,000 students. In addition, over 80 private schools offer primary and/or secondary classes.

The pipeline passes near several schools, listed below. The school nearest the underground pipeline is Seaview Elementary School, located at 2000 Southwood Drive in unincorporated Contra Costa County.

School	Location	Approximate No. of Students	School District	Approximate Closest Point to Pipeline
Lake Elementary School	2700 – 11th Street San Pablo, CA	420	West Contra Costa Unified School District	0.25 miles
Peres Elementary School	719 – 5th Street Richmond, CA	590	West Contra Costa Unified School District	0.40 miles
Seaview Elementary School	2000 Southwood Dr. San Pablo, CA	350	West Contra Costa Unified School District	500 feet
Verde Elementary School	907 Giaramita Street Richmond, CA	360	West Contra Costa Unified School District	1000 feet
John Swett High School	1098 Pomona Street Crockett, CA	700	John Swett Unified School District	1100 feet
Carquinez Middle School	1098 Pomona Street Crockett, CA	480	John Swett Unified School District	1100 feet
Garretson Heights School (currently in use for special programs only)	Garretson Avenue Rodeo, CA	Varies	John Swett Unified School District	1000 feet
St. Patrick School	907 – 7th Street Rodeo, CA	280	(Private School)	900 feet
St. Catherine of Siena School	604 Mellus Street Martinez, CA	270	(Private School)	0.33 miles
St. Peter Martyr School	425 West 4th Street Pittsburg, CA	325	(Private School)	0.33 miles

PUBLIC SERVICES IMPACTS DISCUSSION

a) Fire. The pipeline would not require additional fire protection services outside of those services already available. The pipeline passes through fire protection districts that have established mutual aid agreements with nearby districts. All fire stations are within a few miles of the pipeline and the pump station; the Hercules Fire Station is less than a mile from the pump station. In addition, the pump station is required to adhere to strict safety measures on-site. Use of the pipeline and the pump station would not require the expansion of fire protection facilities or construction of new fire protection facilities.

Police. The pipeline would not require additional police protection services outside of those services already available. The pipeline is underground; the pump station is, and would continue to be, secured by metal mesh fencing topped with barbed wire, a secured entry system, and an alarm system. Use of the pipeline and the pump station would not require the expansion of police protection facilities or construction of new police protection facilities.

Schools. The underground Richmond pipeline passes near one existing school: Seaview Elementary School, located in unincorporated Contra Costa County, within the City of Pinole's sphere of influence. Seaview is a year-round school with approximately 350 students in kindergarten through the sixth grade. However, the pipeline is within the Union Pacific Railroad right-of-way, and is set back from the school by approximately 500 feet, as well as the terminus of two streets. In addition to being used as the right-of-way for the pipeline, the railroad tracks are actively used. There are no schools located within 100 feet of the pipeline.

Use of the pipeline would not, by itself, require the construction of a new or expanded school. The safety of the pipeline is addressed in Section VII., *Hazards and Hazardous Materials*, above. Employees hired as a result of the acquisition of the pipeline and pump station would most likely already live in the Bay Area and, therefore, a new school would not be required for potential new employees or new residents.

Parks.

Impact XIII.1: The pipeline may require maintenance in public parks, recreation areas or designated open space areas, which may result in temporary alteration of public parks.

Temporary alteration of parks, recreation areas or designated open space areas would likely would not constitute a substantial adverse physical impact to the provision of or need for new or physically altered public parks. Nevertheless, the implementation of Mitigation Measure I.1 and IV.2 would lessen the potential impacts of temporary alterations to public parks, recreation areas and open space areas to a less than significant level.

Mitigation Measure: Implement Mitigation Measures I.1 and IV.2.

Significance after mitigation: Less than significant.

REFERENCES

On-Line Guide to Bay Area Private Schools, http://www.baprivateschools.com, accessed March 21, 2001.

California Highway Patrol, http://www.chp.ca.us, accessed March 19, 2001.

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PG&E, *Proponent's Environmental Assessment*, November 8, 2000.

Site visit, January 31, 2001.

Thomas Brothers Maps, *1999 The Thomas Guide: San Francisco, Alameda and Contra Costa Counties*.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

SETTING

Please see Section XIII.a., above, for a description of parks and recreational areas adjacent to the pipeline or through which the pipeline passes. The City of Richmond encompasses over 45 parks, 10 community centers and a marina; the City of Pinole manages three city parks; the City of Hercules manages six city parks, two community centers and an amphitheater; the City of Martinez manages over fourteen parks, several community centers and a marina; and the City of Pittsburg manages over ten city parks. In addition, the communities of Rodeo and Crockett, as well as other unincorporated areas of Contra Costa County include parks and recreational areas managed by the County.

The following public parks and recreational areas in the vicinity (within 0.5 miles) of the Richmond pipeline, but are not adjacent to or traversed by the pipeline:

Park	**Location**	**Description**
Shields Park and Community Center	1410 Kelsey and Gertrude, Richmond *(0.10 miles west of pipeline)*	Includes community center
North Richmond Ballfield Complex	Filbert Street and Brookside Drive North Richmond, CA *(0.40 miles west of pipeline)*	Play fields
Parchester Park and Community Center	900 Williams Drive Richmond, CA *(0.20 miles east of pipeline)*	Includes community center
Montalvin Park	Lettia Road (between Richmond and Pinole] *(Less than 0.10 east of pipeline)*	Include play fields

Park	Location	Description
Mamie Joseph Park	California Street Rodeo, CA *(0.10 miles east of the pipeline)*	Small recreational park
Rithet Park	Between Loring Avenue and Winslow Street Crockett, CA *(0.005 miles south of pipeline)*	Small recreational park
Alexander Park	Pomona Street Crockett, CA *(0.10 miles south of pipeline)*	Includes a pool and community center
Campfire Girls Park	Winslow Street Crockett, CA *(0.005 miles south of pipeline)*	Small recreational park
Willow Cove School Park	Hanlon Way Bay Point, CA *(0.20 miles south of pipeline)*	Linear park
DeAnza Park	Trident Drive Bay Point, CA *(0.20 miles south of pipeline)*	Small recreational park
California Seasons Park	Seasons Way Bay Point, CA *(0.005 miles southeast of pipeline)*	Small recreational park

RECREATION IMPACTS DISCUSSION

a) The proposed project makes use of an existing underground pipeline that passes through several Contra Costa County municipalities, and an existing pump station located in the City of Hercules. The project would require replacement of an underground section of the pipeline located within the City of Martinez. The underground pipeline is located primarily either within the Union Pacific Railroad right-of-way or within public street right-of-ways, and passes through the cities of Richmond, Hercules, San Pablo, Pinole, Rodeo, and Martinez, and unincorporated areas of Contra Costa County, including Crockett. The pump station is located on 44.2 acres of land generally bounded by San Pablo Avenue, John Muir Parkway, I-80 and undeveloped lands to the north. However, the pump station and the pipeline are existing structures. The proposed operation of the pump station and the pipeline would not result in physical changes in the vicinity of the project route, and therefore would not have any impact on any recreation resource that exists near the pump station or along the existing pipeline.

The restarted pipeline and pump station likely would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

b) The proposed project consists of the operation of a pipeline and pump station that have not been in routine use for approximately 19 years, although the pipeline has been maintained to provide standby capability. The pump station is located in the City of Hercules and the pipeline runs through the cities of Richmond, Hercules, San Pablo, Pinole, Rodeo, and Martinez, and unincorporated areas of Contra Costa County, including Crockett. Most of the pipeline is located within the Union Pacific Railroad right-of-way or public roadway right-of-ways. Once back in operation, only a small crew of workers would be needed for operation and maintenance of the facilities. Therefore, the proposed project would not require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

REFERENCES

Bay Conservation and Development Commission, *San Francisco Bay Plan*, http://www.bcdc.ca.gov/commlib/bayplan/ld1_TOC.htm, accessed March 8, 2001.

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Contra Costa County, *Contra Costa County General Plan*, July 1996.

McBride, Janet, Project Manager, San Francisco Bay Trail, Association of Bay Area Governments, March 7, 2001.

Thompson, Laura, Bay Trail Planner, San Francisco Bay Trail, Association of Bay Area Governments, March 7, 2001.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XV. TRANSPORTATION / TRAFFIC— Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☒	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Result in inadequate parking capacity?	☐	☒	☐	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☒	☐	☐

SETTING

The pipeline generally traverses the UPRR right-of-way between Chevron's Richmond Refinery and the Pittsburg Pumping Plant. Along the way, the pipeline crosses two major interstate highways, numerous arterials, local roads, rail right-of-way, and bikeways. The conditions of these travel paths are greatly influenced by the employment centers in Contra Costa County, Alameda County, and San Francisco with the major highways and arterials tending to be congested during morning and late afternoon commute periods.

INTERSTATE HIGHWAYS

Interstate 80/Carquinez Bridge

Interstate 80 (I-80) is a major six-lane, north-south freeway that traverses the cities of Richmond, Pinole, Hercules, Martinez, and western Contra Costa County. The pipeline crosses the I-80 right-of-way at the south end of the Carquinez Bridge. I-80 provides a direct route to Sacramento to the north, and San Francisco and Oakland to the south. Caltrans reported an existing average daily traffic volume of approximately 109,000 vehicles per day (vpd) using I-80 at the Carquinez Bridge in 1999, with peak-hour traffic averaging 8,200 vehicles.

Interstate 680

Interstate 680 (I-680) is a major six-lane, north-south freeway that traverses the City of Martinez and central Contra Costa County. I-680 provides a direct route to Concord, Walnut Creek, and San Jose to the south, and Benicia and Fairfield to the north. The pipeline crosses the I-680 right-of-way near the Waterfront Road onramp/offramp in Martinez. Average daily traffic at this interchange was 98,000 vpd in 1999, with peak-hour traffic averaging 7,800 vehicles.

State Route 4

State Route (SR) 4 is a four-lane freeway extending east from I-80 in Hercules through Contra Costa County. Average daily traffic east of I-80 was approximately 27,000 vpd, increasing to approximately 73,000 vpd west of I-680.

ROADS

The existing pipeline crosses or runs within approximately 26 road rights-of-way (not including the interstates previously mentioned). Although several of these roads are arterials or collector roads, most are low speed, low capacity roadways that only provide circulation within neighborhoods and access to adjacent land.

The Hercules Pump Station is located adjacent to San Pablo Avenue. San Pablo Avenue is a six-lane divided arterial in the project vicinity.

Richmond to I-80

Between Chevron's Richmond Refinery and I-80, the pipeline traverses the cities of Richmond, Hercules, Pinole, and unincorporated areas of Contra Costa County. The pipeline enters into 17 road rights-of-way, including five major arterial and collector roads:

- Richmond Parkway – a north-south arterial that provides access between I-580 and I-80 in Richmond
- San Pablo Avenue/Parker Avenue – a north-south arterial that provides access through the cities of Richmond, San Pablo, Pinole, and Hercules
- Market Street – an east-west collector road that provides access from western Richmond to San Pablo Avenue
- Parr Boulevard – an east-west collector road that provides access from the Richmond Parkway to Giant Road in San Pablo
- Tennent Avenue – a north-south arterial that provides access between western Hercules and Pinole to I-80

I-80 to I-680

Between I-80 and I-680 the pipeline traverses unincorporated areas of Contra Costa County and the City of Martinez. The pipeline enters into four road rights-of-way, including one major arterial road, Marina Vista, in Martinez. Marina Vista is a two-way, east-west arterial road that provides access between I-680 and downtown Martinez.

I-680 to the Pittsburg Pumping Plant

Between I-680 and the Pittsburg Pumping Plant, the pipeline traverses unincorporated areas of Contra Costa County, the cities of Martinez and Pittsburg, and the U.S. Naval Weapons Station (Port Chicago). The pipeline enters into five road rights-of-way, including three major arterial roads:

- Waterfront Road – an east-west arterial road that provides access between I-680 and the U.S. Naval Weapons Station (Port Chicago)
- Port Chicago Highway – a north-south and east-west road that provides access between Highway 4 and the U.S. Naval Weapons Station
- Willow Pass Road/West 10th Street – an east-west arterial that provides access between Port Chicago Highway and western Pittsburg

Proposed 4,000-Foot Pipeline Replacement Section

The proposed 4,000-foot pipeline replacement section would cross or be located in parts of Berrellessa Street, Embarcadero, Ferry Street, North Court Street and Joe DiMaggio Drive in the City of Martinez. In the project vicinity, Berrellessa Street is a two-lane roadway providing access across the UPRR tracks and, terminating at the Martinez Regional Shoreline Park. Embarcadero is a two-lane local roadway extending approximately one-quarter mile west from Berrellessa Street, parallel to and north of the UPRR tracks. Ferry Street is a two-lane roadway that provides access across the UPRR railroad tracks, terminating just east of Alhambra Creek. The maximum posted speed limit on Ferry Street north of the UPRR tracks ranges between 10 and 15 miles per hour (mph). North Court Street extends east and north of Ferry Street, providing access through the Martinez Regional Shoreline and terminates at the Martinez Marina. The maximum posted speed limit on North Court Street is 25 mph. Joe DiMaggio Drive is a two-lane roadway extending east from North Court Street through Martinez Waterfront Park, terminating at Joe DiMaggio Fields. The maximum posted speed limit on Joe DiMaggio Drive is 15 mph.

Access between the 4,000-foot replacement section project vicinity from SR 4 is made via Alhambra Avenue, Berrellessa Street, Escobar Street and Marina Vista, or from I-680, via Marina Vista and Escobar Street. These streets are all designated routes in the City of Martinez. South of Marina Vista, Alhambra Avenue and Berrellessa Street operate as a two-way couplet (Berrellessa Street one-way southbound and Alhambra Avenue one-way northbound). West of its connection with Escobar Street, Marina Vista and Escobar Street operate as a two-way couplet

(Marina Vista one-way westbound and Escobar Street one-way eastbound). East of Escobar Street, Marina Vista is a four-lane divided arterial.

Table XV-1, below, presents available daily traffic volumes on roadways in the vicinity of the 4,000-foot pipeline replacement project.

TABLE XV-1
DAILY TRAFFIC VOLUMES ON ROADWAYS IN THE VICINITY OF THE 4,000-FOOT PIPELINE REPLACEMENT

Roadway	Location	Daily Traffic Volume
Ferry Street	north of UPRR tracks	2,510 (two-way)
North Court Street	north of Ferry Street	1,650 (two-way)
Marina Vista	west of Escobar Street	3,860 (one-way westbound)
	west of I-680	10,200 (two-way)
Escobar Street	east of Ferry Street	4,600 (two-way)
Berrellessa Street	south of Escobar Street	3,100 (one-way southbound)
Alhambra Avenue	south of Escobar Street	3,100 (one-way northbound)

SOURCE: Martinez Public Works Department, 24-hour counts, 1988-1996.

RAIL

The majority of the pipeline parallels the UPRR. The UPRR is one of the largest railroads in North America, operating in the western two-thirds of the United States. The UPRR system serves 23 states, linking every major West Coast and Gulf Coast port. Average daily train traffic on the UPRR line within the pipeline corridor is approximately 20 freight trains between Richmond to Martinez, and seven trains per week between Martinez and Pittsburg. Approximately 14 commuter trains per day also use the UPRR rail system.

Two railroad lines carry freight within the pipeline vicinity. The UPRR line (which extends beyond the county) is a high-speed double track between Richmond and Martinez, and carries the most freight traffic of all the railroad corridors in Contra Costa County. The Burlington Northern and Santa Fe (BNSF) railroad corridor roughly parallels the UPRR line between Richmond and Hercules. The BNSF then turns inland toward Martinez where it again closely parallels the UPRR to Pittsburg.

BIKEWAYS

The pipeline crosses approximately 10 bikeways in Contra Costa County. County bikeways include both on-road and off-road paths that are maintained by the county, the various cities, and the East Bay Regional Park District. All of these bikeways are primarily utilized by recreational users and are not widely used for commute purposes.

In the vicinity of the 4,000-foot pipeline replacement section, Alhambra Avenue, Escobar Street and Marina Vista contain Class II bike lanes. Ferry Street contains Class II bike lanes north of the UPRR tracks and Class III bike lanes south of the UPRR tracks.

PUBLIC TRANSPORTATION

Alameda Contra Costa Transit District (AC Transit)

The pipeline route crosses numerous Alameda Contra Costa Transit District's bus routes. AC Transit is the primary public bus system serving 13 cities and adjacent unincorporated communities within 390 square miles along the eastern shores of San Francisco and San Pablo bays. The pipeline crosses approximately five AC Transit bus routes on public streets in Richmond and El Sobrante.

In the vicinity of the replacement pipeline project, the County Connection operates Route 128-Downtown Shuttle Service along Ferry Street, North Court Street and Joe DiMaggio Drive. Other County Connection routes that extend through downtown include Routes 108, 116, 118, and 308.

Amtrak

Amtrak operates trains that provide daily intercity rail passenger service to parts of Contra Costa County. Amtrak trains run along the UPRR lines between Oakland and Martinez into the Sacramento Valley. A combination of UPRR and BNSF tracks run from Martinez to the Central Valley and points south. Passenger stations are located at 401 Ferry Street in Martinez, and 16th at MacDonald Avenue in Richmond.

Bay Area Rapid Transit District (BART)

BART is the primary public mass transit system in Contra Costa County. BART is a 95-mile, rapid transit system serving over 3 million people in Alameda, Contra Costa, San Francisco, and northern San Mateo counties. The pipeline does not cross, and does not run adjacent to, any BART tracks or stations.

Central Contra Costa Transit Authority (County Connection)

The County Connection provides public bus services within central Contra Costa County. The County Connection serves the cities of Clayton, Concord, Danville, Lafayette, Martinez, Moraga, Orinda, Pleasant Hill, San Ramon, Walnut Creek, and unincorporated areas of the central county. Within the area of the Pipeline, the County Connection serves only the City of Martinez. No bus routes cross the pipeline.

Western Contra Costa Transit Authority (WestCAT)

WestCAT has bus routes through Pinole, Hercules, and El Sobrante and operates demand-response Dial-a-Ride service in Pinole, Hercules, Rodeo, and Crockett. WestCAT supports the Martinez Link express bus service, which connects western Contra Costa County with Martinez. The pipeline crosses only one WestCAT bus route on San Pablo Avenue in Rodeo.

PLANS AND POLICIES

The general plans of the cities of Richmond, Pinole, Martinez, and Pittsburg contain no relevant transportation plans or policies.

Contra Costa County

The *Contra Costa County General Plan* contains the following relevant policies:

Goal 5-V. To protect the existing railroad right-of-way in the county for continued railroad use, utility corridors, roads, transit facilities, trails and other public purposes.

Policy 5-73. Encroachments into railroad right-of-way by urban uses that would impact current rail operations or preclude future use of the corridors for trails or other public purposes shall be limited.

City of Hercules

The City of Hercules General Plan discusses the possibility of building a new rail station. However, no specific plans for the station are proposed in the document:

Policy g. Major transmission and fuel lines should be reviewed to ensure compatibility with affected General Plan elements.

TRANSPORTATION/TRAFFIC IMPACT DISCUSSION

CONSTRUCTION

a) **Construction Vehicle Trip Generation.** A 4,000-foot replacement section of the pipeline would be constructed in Martinez by SPBPC. It is assumed that the replacement pipeline section would be constructed using standard trenching and boring methods. Traffic-generating construction activities related to pipeline replacement installation would consist of the daily arrival and departure of construction workers to each work site; trucks hauling equipment and materials to the work site; and the hauling of excavated spoils from, and import of new fill to, each work site. Based on estimates of manpower per task, it is estimated there would be up to 15 personnel at any one time along the alignment site during construction. Assuming that each worker would travel in his/her own vehicle to and from the site, and that some midday trips would occur, this would result in up to about 20 worker vehicle round trips per day (40 one-way trips).

It is assumed the trench size for open-cut installation would be approximately three feet wide by seven feet deep. It is expected that open trench construction would occur at approximately 100 linear feet per workday, depending on location and conditions. Material excavated from the trench would be stockpiled and could be used as backfill, if of proper quality. However, as a worst-case assumption, for purposes of this analysis, it is assumed that all excavated trench spoils would be hauled off-site, and replaced with imported engineered fill. Using an average haul load of 10 cubic yards (CY) per truck, and assuming no backhauling, this would amount to up to 16 truck haul round trips (32 one-way trips) generated per work day. Accounting for the delivery of pipe and other construction components (which would be shipped on demand to the project site throughout the construction period), the total number of off-site construction truck trips would be approximately 20 round trips (40 one-way trips) per work day.

The proposed pipeline alignment would parallel Joe DiMaggio Drive east of North Court Street, North Court Street between Joe DiMaggio Drive and Ferry Street, and Ferry Street north of the UPRR tracks, and would parallel or be constructed in Embarcadero, west of Berrellesa Street. It would cross three roadways: Berrellesa Street, Ferry Street and North Court Street. The estimated construction right-of-way width, within which all construction activity would occur, would be 50 feet (a 15 to 20-foot permanent easement plus an additional 30-foot temporary easement).

Impact XV.1: Pipeline installation activities would temporarily disrupt existing transportation and circulation patterns in the vicinity. Impacts would include direct disruption of traffic flows and street operations. Lane blockages or street closures during pipeline installation would result in a reduction in travel lanes. Thus, the replacement pipeline installation within or across streets would reduce the number of, or the available width of, travel lanes on roads, resulting in temporary disruption of traffic flows and increases in traffic congestion this impact would be potentially significant but can be reduced to less than significant with the following mitigation measures:

Mitigation Measure XV.1a: Prior to commencing construction activities, SPBPC shall obtain and comply with local and state road encroachment permits, and railroad encroachment permits. SPBPC shall submit all local and state road encroachment permits obtained for the replacement section in Martinez to the CPUC mitigation monitor for review. The CPUC's mitigation monitor shall monitor compliance with these permits during construction activities.

Mitigation Measure XV.1b: Prior to commencing construction activities, the construction contractor shall prepare a traffic control plan in accordance with professional engineering standards prior to construction. As appropriate, traffic control plans shall include the following requirements:

- **Identify all roadway locations where special construction techniques (e.g., directional drilling or night construction) would be used to minimize impacts to traffic flow.**

- **Develop circulation and detour plans to minimize impacts to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone.**

- **Schedule truck trips outside of peak morning and evening commute hours.**

- **Limit lane closures during peak hours to the extent possible.**

- **Use haul routes minimizing truck traffic on local roadways to the extent possible.**

- **Include detours for bicycles and pedestrians in all areas potentially affected by project construction.**

- **Open trenches subject to vehicular or pedestrian traffic would be covered at the end of each workday with metal plates capable of accommodating traffic.**

- **Install traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones.**

- **Safety fencing would be installed, where needed, to protect pedestrians from construction areas.**

- **At a minimum, the UPRR safety and engineering guidelines would be maintained when installing pipeline within the railroad right-of-way. All construction crews and project personnel would be trained on UPRR safety guidelines prior to commencing work in the railroad right-of-way.**

- **Construction vehicles and equipment would not cross the tracks except at established public crossings or as specified by UPRR.**

- **Develop and implement access plans for highly sensitive land uses such as police and fire stations, transit stations, hospitals and schools. The access plans would be developed with the facility owner or administrator. To minimize disruption of emergency vehicle access, ask affected jurisdictions to identify detours for emergency vehicles, which will then be posted by the contractor. Notify in advance the facility owner or operator of the timing, location, and duration of construction activities and the locations of detours and lane closures.**

- **Store construction materials only in designated areas.**

- **Coordinate with local transit agencies for temporary relocation of routes or bus stops in works zones, as necessary.**

- **All roads disturbed during construction would be restored to their preconstruction condition pursuant to franchise agreements with the City of Martinez.**

The traffic control plan shall be submitted to applicable jurisdictions for review and approval.

Significance after mitigation: Less than significant.

b) Construction-generated traffic would be temporary and therefore would not result in any long-term degradation in operating conditions or level of service on any project roadways. The primary off-site impacts from the movement of construction trucks would include short-term and intermittent lessening of roadway capacities due to slower movements and larger turning radii of the trucks compared to passenger vehicles. The majority of the proposed pipeline construction is within relative proximity to major arterials, state routes and freeways. The use of these routes would minimize the project's effects on traffic flow in the vicinity of the project sites.

As discussed under Construction Vehicle Trip Generation, above, installation of the replacement pipeline could generate up to 20 off-site construction worker vehicle round-trips (40 one-way trips) and 20 off-site truck round trips (40 one-way trips) per day. Traffic would temporarily increase by three percent or less on Ferry Street, Escobar Street, Marina Vista, Alhambra Avenue and Berrellessa Avenue south of Escobar Street. These project-generated trips would not be substantial relative to background traffic conditions, and would fall within the daily fluctuations of traffic for these roadways. The traffic generated by construction activities would be felt the most on Berrellessa Avenue north of the UPRR tracks, Embarcadero; however, given the very low existing traffic activity on these roadways, the temporary increase in trips would not substantially affect traffic flow and operations. The temporary increase in daily traffic on freeways serving the project area, including SR 4 and I-680, would be imperceptible (0.1 percent increase).

Level of service standards for roadways that are part of county Congestion Management Program (CMP) networks are intended to regulate long-term traffic increases from operation of new development, and do not apply to temporary construction projects. As such, the proposed project would not exceed level-of-service standards established by the applicable Congestion Management Agency for designated CMP roadways.

Impact XV.2: Construction-generated traffic could cause a temporary impact to operating conditions or level of service on local roadways.

Following the restrictions of **Mitigation Measure XI.1a**, hours of construction are Monday through Saturday, 7 a.m. to 7 p.m. Most project-related hauling and deliveries would be dispersed throughout the day, thus lessening the effect on peak-hour traffic. Project truck traffic occurring weekdays during the hours of 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.

would coincide with peak-period traffic, and therefore, would have the greatest potential to impede traffic flow.

As specified under **Mitigation Measure XV.1a**, above, SPBPC shall obtain all necessary local and state road encroachment permits, and railroad encroachment permits, prior to construction and would comply with all the applicable conditions of approval. As specified under **Mitigation Measure XV.1b**, the construction contractor would prepare a traffic control plan in accordance with professional engineering standards prior to construction. Examples of specific requirements that shall be included in the traffic control plan are identified under **Mitigation Measure XV.1b**.

Mitigation Measure: Implement Mitigation Measures XV.1a and XV.1b.

Significance after mitigation: Less than significant.

c) There would be no impact to air traffic patterns or increase in safety risks as a result of the proposed project.

d) Heavy equipment operating adjacent to or within a road right-of-way would increase the risk of accidents. Construction-generated trucks on project area roadways would interact with other vehicles. Potential conflicts also could occur between construction traffic and bicyclists and pedestrians, particularly in the urban areas and residential neighborhoods.

Impact XV.3: Heavy equipment operating adjacent to or within a road right-of-way could increase the risk of accidents.

As specified under **Mitigation Measure XV.1a**, above, SPBPC would obtain all necessary local and state road encroachment permits, and railroad encroachment permits, prior to construction and would comply with all the applicable conditions of approval. As specified under **Mitigation Measure XV.1b**, the construction contractor would prepare a traffic control plan in accordance with professional engineering standards prior to construction, including compliance with roadside safety protocols, so as to reduce the risk of accident. Examples of specific requirements that shall be included in the traffic control plan are identified under **Mitigation Measure XV.1b**. Thus, implementation of **Mitigation Measures XV.1a and XV.1b** would ensure temporary increases in the potential for accidents would be mitigated to a less than significant level.

Mitigation Measure: Implement Mitigation Measures XV.1a and XV.1b.

Significance after mitigation: Less than significant.

e) As discussed in items a) & b) above, the proposed project would have temporary effects on traffic flow, particularly with routes within road right of ways. Pipeline installation within

or across streets and temporary reduction in travel lanes could result in delays for emergency vehicle access in the vicinity of the work sites.

Impact XV.4: Pipeline installation within or across streets and temporary reduction in travel lanes could result in delays for emergency vehicle access in the vicinity of the work sites.

As specified under **Mitigation Measure XV.1a**, SPBPC would obtain all necessary local and state road encroachment permits, and railroad encroachment permits, prior to construction and would comply with all the applicable conditions of approval. As specified under **Mitigation Measure XV.1b**, the construction contractor shall prepare a traffic control plan in accordance with professional engineering standards prior to construction. The traffic control plan shall require the construction contractor to establish methods for maintaining traffic flow in the project vicinity and minimizing disruption to emergency vehicle access to land uses along the alignment. Specific requirements that shall be included in the traffic control plan are identified under Mitigation Measure XV.1b. Implementation of **Mitigation Measures XV.1a and XV.1b** would ensure potential impacts associated with temporary effects on emergency access would be mitigated to a less than significant level.

Mitigation Measure: Implement Mitigation Measures XV.1a and XV.1b.

Significance after mitigation: Less than significant.

f) The proposed project will create limited new, temporary parking demand for construction workers and construction vehicles as crews move along the installation alignment. As discussed in item a) and b) above, the project would not generate a substantial number of construction workers at any one location along the alignment; therefore, the amount of parking required would not be significant. Construction along the alignment could also temporarily prevent access to off-street parking adjacent to the alignment, including Waterfront Park and Joe DiMaggio Fields. However, given the proposed rate of new pipeline installation, impacts to access to parking would be relatively brief at any one location along the alignment.

Impact XV.5: Construction of the 4,000-foot replacement section could temporarily prevent access to off-street parking adjacent to the alignment, including Waterfront Park and Joe DiMaggio Fields.

As specified under **Mitigation Measure XV.1a**, above, SPBPC would obtain all necessary local and state road encroachment permits, and railroad encroachment permits, prior to construction, and would comply with all the applicable conditions of approval. As specified under **Mitigation Measure XV.1b**, the construction contractor shall prepare a traffic control plan in accordance with professional engineering standards prior to

construction. The traffic control plan shall require the construction contractor to establish methods for minimizing construction effects on parking. Examples of specific requirements that shall be included in the traffic control plan are identified under **Mitigation Measure XV.1b**. Implementation of **Mitigation Measures XV.1a and XV.1b** would ensure potential impacts associated with potential temporary displacement of on-street parking would be mitigated to a less than significant level.

Mitigation Measure: Implement Mitigation Measures XV.1a and XV.1b.

Significance after mitigation: Less than significant.

g) The proposed project will have no lasting impact on demand for alternative transportation or on alternative transportation facilities. However, pipeline construction could disrupt access to bus stops along the alignment, and slow bus movements, including for County Connection Route 128 which travels along Ferry Street, North Court Street and Joe DiMaggio Drive. Bus routes on streets may need to be temporarily detoured, and bus stops temporarily relocated.

Impact XV.6: Pipeline construction could disrupt access to bus stops along the alignment, and slow bus movements, including for County Connection Route 128 which travels along Ferry Street, North Court Street and Joe DiMaggio Drive. Bus routes on streets may need to be temporarily detoured, and bus stops temporarily relocated.

As specified under **Mitigation Measure XV.1a** above, SPBPC would obtain all necessary local and state road encroachment permits, and railroad encroachment permits, prior to construction and would comply with all the applicable conditions of approval. As specified under **Mitigation Measure XV.1b**, the construction contractor would prepare a traffic control plan in accordance with professional engineering standards prior to construction. The traffic control plan shall require the construction contractor to establish methods for minimizing construction effects on transit service. Examples of specific requirements that shall be included in the traffic control plan are identified under **Mitigation Measure XV.1b**. Implementation of **Mitigation Measures XV.1a and XV.1b** would ensure potential impacts associated with temporary disruptions to transit service would be mitigated to a less than significant level.

Mitigation Measure: Implement Mitigation Measures XV.1a and XV.1b.

Significance after mitigation: Less than significant.

OPERATION

a-g) Operation of the proposed project would not change existing transportation facilities nor would it create a substantial increase in new traffic. Therefore, operations would not result in any impacts to transportation and traffic. Operation of the Hercules Pump Station would require between one to two workers daily to operate the facility. Occasional maintenance at the Hercules Pump Station and along the pipeline alignment would be required, which would generate temporary sources of traffic. However, this would be infrequent and of limited duration, and therefore, would not result in any long-term traffic impacts.

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Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XVI. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

SETTING

The Richmond to Pittsburg Pipeline parallels numerous public utility and service system corridors, including water lines, sewer lines, electric lines, natural gas lines, and communication lines. Several service providers operate these utilities and service systems and provide these resources to residents and businesses in the vicinity of the pipeline.

WATER SERVICE

There are two major water providers in Contra Costa County: the East Bay Municipal Utility District (EBMUD) and the Contra Costa Water District (CCWD).

The EBMUD collects water from the Mokelumne River watershed in the Sierra Nevada and conducts it to the east Bay Area through three 81-mile aqueducts. The EBMUD is the largest water district in Northern California serving approximately 1.2 million people in a 325-square-mile area extending from Crockett on the north, southward to San Lorenzo (encompassing the major cities of Oakland and Berkeley), eastward from San Francisco Bay to Walnut Creek, and south through the San Ramon Valley.

The CCWD takes its water from the Sacramento-San Joaquin Delta, which is the primary source of water for 430,000 residents in central and eastern Contra Costa County. The CCWD supplies treated water to all urbanized areas in central Contra Costa County that are not serviced by EBMUD. The CCWD provides untreated water, or "raw" water, to the cities of Antioch, Pittsburg, and Martinez, and various industrial and agricultural users. The CCWD also sells raw water to the California Cities Water Company (Bay Point) and the Oakley Water District.

SEWER SERVICE

The following eight service districts manage sewer service along the pipeline corridor:

- The Central Contra Costa Sanitary District is an independent local utility that provides wastewater collection and treatment services for over 400,000 residents in all the cities and unincorporated areas of central Contra Costa County from Martinez to San Ramon. The treated wastewater is piped from the treatment plant in Concord, north into Suisun Bay.

- The Crockett-Valona Sanitary District (CVSD) provides wastewater collection and transport services for approximately 3,200 customers in the unincorporated area of Crockett. The sewage is treated at the Joint Treatment Plant, which is partly owned by the CVSD and managed and operated by the C&H Sugar Company. The plant discharges treated effluent into the Carquinez Strait.

- The Delta Diablo Sanitation District operates a sewage treatment plant that treats wastewater from unincorporated Bay Point, the City of Pittsburg, and the City of Antioch. The treatment plant has a capacity of 12.6 million gallons per day. The treated effluent is discharged into the Sacramento-San Joaquin Delta.

- The East Bay Municipal Utility District wastewater system treats domestic, commercial, and industrial wastewater for approximately 600,000 people in an 83-square-mile area of Alameda and Contra Costa counties along the bay's east shore, extending from Richmond on the north, southward to San Leandro. Each of these communities operates sewer collection systems that discharge into one of five EBMUD intercepting sewers. The 29 miles of interceptors collect wastewater from approximately 1,400 miles of sewers.

- The Mt. View Sanitary District (MVSD) provides wastewater collection and treatment services to approximately 20,000 residents in the unincorporated areas east of the City of Martinez. The MVSD treats an average daily flow of 1.7 million gallons of wastewater.

- The West Contra Costa Sanitary District (WCCSD) operates a sewage treatment plant for the City of San Pablo, parts of Richmond, El Sobrante, Pinole, and other unincorporated areas of western Contra Costa County. The WCCSD plant has the capacity to treat 12 million gallons of wastewater per day.

- The City of Richmond operates a municipally owned sewer collection and treatment system for approximately 50,000 customers in the city.

- The City of Pinole operates a municipally owned sewage treatment plant that treats effluent from both the Pinole and Hercules municipal collection systems. The plant serves a combined population of approximately 34,000, with an average flow of 2 million gallons of wastewater per day.

At the Hercules Pump Station, water is provided by the EBMUD, but the station is not connected to a public sewer system. Sewage from the pump plant's control room restroom drains into a 1,200-gallon septic tank. A pump truck service drains the septic tank as needed.

ELECTRIC AND NATURAL GAS SERVICE

Pacific Gas and Electric Company provides electric service to the Hercules Pump Station and residents and businesses in the cities of Hercules, Martinez, Pinole, Pittsburg, Richmond, and the unincorporated areas of Contra Costa County.

CABLE SERVICE

The American Telephone and Telegraph Company provides cable service to residents and businesses in the cities of Hercules, Martinez, Pinole, Pittsburg, Richmond, and the unincorporated areas of Contra Costa County.

TELEPHONE SERVICE

Pacific Bell provides telephone service and access to local and long distance carriers to the Hercules Pump Station and all of the jurisdictions crossed by the pipeline.

GARBAGE AND RECYCLING SERVICE

The following companies provide garbage and/or recycling services:

- Browning Ferris Industries serves Rodeo, Pleasant Hill, Martinez, and west Pittsburg
- The Crockett Garbage Company serves Crockett and Port Costa
- Richmond Sanitary Service provides garbage and recycling services to the cities of Richmond, Hercules (including the Hercules Pump Station), and Pinole
- Pittsburg Disposal provides garbage and recycling services to the City of Pittsburg
- Pleasant Hill Bay Shore Disposal provides garbage and recycling services to the City of Martinez
- Numerous providers serve the remaining unincorporated areas of Contra Costa County

UTILITIES AND SERVICE SYSTEMS IMPACTS DISCUSSION

a-g) The only potential construction-related impact to utilities and service systems would result from the proposed construction of the 4,000-foot replacement section. Existing landfills would have adequate capacity for the disposal of wastes associated with the 4,000-foot replacement section. As a result, impacts to landfill capacity would be less than significant.

Operation of the pipeline would involve existing services from local utility, communication, water, and solid waste systems, and therefore would not create a need for new systems, supplies, or substantial alterations to power or natural gas, communications systems, local or regional water treatment or distribution facilities, sewer or septic tanks, storm water drainage, solid waste disposal, or local or regional water supplies. As a result, operation of the pipeline would not impact utilities and service systems, and mitigation measures are not required for operation of the Richmond to Pittsburg Fuel Oil Pipeline and Hercules Pump Station. However, construction activities could inadvertently contact underground facilities during underground construction, possibly leading to short-term service interruptions. While the likelihood of this occurring is remote and this impact is less than significant, the following mitigation measure was proposed by PG&E to further reduce this less than significant impact to an even lower level of significance.

Impact XVI.1: Construction activities could inadvertently contact underground facilities during underground construction, possibly leading to short-term service interruptions.

Mitigation Measure XVI.1: SPBPC shall:

Insure that USA is notified at least 48 hours before initiating construction of the proposed pipeline replacement. USA verifies the location of all existing underground utilities, in order to ensure that they are avoided, and alerts the other utilities to mark their facilities in the area of construction.

Where the replacement section crosses or is adjacent to live, overhead electric lines, install signs warning equipment operators of the presence of the line.

Dispose of construction debris at an approved waste disposal site.

Obtain hydrostatic test water from existing municipal sources. Hydrostatic test water would be discharged into a public-owned treatment works or to upland areas (grasslands) using a dewatering structure that would prevent erosion and movement of soil. Test water would not be directly discharged into any stream or wetland.

Significance after mitigation: Less than significant.

REFERENCES

Pacific Gas and Electric Company. 2000. *Proponents Environmental Assessment, Pacific Gas and Electric Richmond to Pittsburg Pipeline, and Hercules Pump Station*.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒
d) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☐	☒

DISCUSSION OF MANDATORY FINDINGS OF SIGNIFICANCE

The proposed project involves the sale of the Richmond to Pittsburg Pipeline and related assets to a new owner (SPBPC). SPBPC would be a CPUC-regulated utility and would need to construct a 4,000-foot replacement section of the pipeline in the City of Martinez in order to be able to fully operate the Pipeline. Outside of the construction of the replacement section of the pipeline, the proposed project involves no other physical changes except recommencing operations at the existing facilities.

a) As discussed in the Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, and Transportation/Traffic sections of this document, the proposed project has a number of potentially significant temporary impacts associated with the construction of the 4,000-foot replacement section that have some potential to degrade the quality of the environment. Mitigation measures described in these sections (I.1, III.1, IV.1, IV.2, V.1a, V.1b, V.1c, V.2, V.3, VI.1, VI.2, VII.1, VII.1a, VII.1b, VIII.1, IX.2, XI.1, XV.1, XV.2, XV.3, XV.4, XV.5, and XV.6) are considered adequate to reduce these individual impacts to a less than significant level.

As discussed in Biological Resources Section, the project does not have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife

population to drop below self-sustaining levels, nor does it threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. The Cultural Resources Section concluded that the project does have some potential to eliminate important examples of the major periods of California history or prehistory; but the mitigation measures imposed in that section (V.1a, V.1b, V.1c, V.2, and V.3) would reduce that potential to a less than significant level.

b) Although the Pipeline is not presently in routine use and requires that a 4,000-foot section in Martinez be replaced to be fully operational, no substantial change in the Pipeline's operable status will occur as a result of the proposed project; i.e., the Pipeline is operable today and will continue to be operable after the change in ownership. During construction of the 4,000-foot replacement section in Martinez, air emissions from construction equipment could cause a temporary cumulatively significant impact to the local air quality. However, the mitigation measure (III.1) described in the Air Quality section of this document are considered adequate to reduce this impact to a less than significant level. Near the Hercules pump station, a recently proposed residential development and school (See Section IX) have some potential to be impacted by the operation of the Pipeline, but only if these projects are not designed according to existing state and local guidelines. A review of environmental documents for this proposed development indicate that the there is sufficient clearance between the Pump Station easement and the proposed development and school project sites such that setbacks and mitigation measures included in the development and school approvals would reduce any resulting cumulative impacts to a less than significant level (found in the environmental document for that project). There are no other known existing or pending pipeline or other projects in the Richmond to Pittsburg Fuel Oil Pipeline and Hercules Pump Station project vicinity that when considered together with the proposed project would result in cumulatively considerable impacts.

c) With the mitigation measures imposed in this document, the proposed sale of the Pipeline and its operation by SPBPC would not have environmental effects that could cause substantial adverse effects on human beings, either directly or indirectly. Though oil products are considered as hazardous materials, oil is not explosive and is relatively inflammable compared to other petroleum products, and is toxic only if ingested in large amounts. Therefore, the project's potential to cause adverse effects on humans is related largely to the oil spills that could result if the pipeline or storage tanks at the pump station are ruptured. If the project is approved, SPBPC intends to construct the missing 4,000-foot section in Martinez and operate the pipeline and pump station in accordance with established laws, ordinances, regulations, and standards applicable to the construction and operation of oil pipelines. Prior to installing the 4,000-foot replacement, SPBP will conduct extensive geotechnical studies and design the project to applicable standards in order to prevent ruptures during earthquakes. SPBPC will conduct periodic safety inspections of the pipeline under the supervision of the State Office of the Fire Marshall.

The project could include some potential to affect human health because of temporary air quality effects during construction of the replacement section in Martinez; but mitigation

measures imposed in the air quality section would reduce this potential to a less than significant level.

d) The proposed project has no potential to achieve short-term environment goals to the disadvantage of long-term environmental goals. As discussed in the Air Quality section, the project has some potential to have a short-term effect on the continued nonattainment of air quality goals in the Bay Area Air Basin, but mitigation measures imposed in the air quality section would reduce this potential to a less than significant level, and would have no effect on achieving long-term air quality goals. As noted in the Biological Resources section, there is some potential for the project to conflict with a local habitat conservation plan that has a long-term goal of protecting wildlife near the route of the 4,000-foot replacement section in Martinez. This potential consists primarily of a possible conflict between construction activities for the replacement section and planned nearby marsh restoration work, but mitigation measures imposed in the Biological Resources section would reduce this potential to a less than significant level, and would have no effect on achieving long-term habitat conservation plan goals.

SECTION 3.0
ENVIRONMENTAL DETERMINATION

On the basis of this initial evaluation:

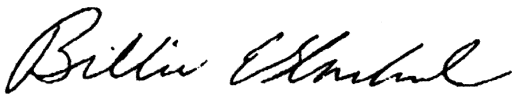
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

April 19, 2002
Date

Billie C. Blanchard, Public Utilities Regulatory Analyst III
Printed Name

SECTION 4.0

REPORT AUTHORS, PUBLIC AGENCY OUTREACH MEETINGS, AND CONSULTATIONS

4.1 REPORT AUTHORS

4.1.1 LEAD AGENCY

California Public Utilities Commission

Billie C. Blanchard, Environmental Project Manager

4.1.2 CONSULTANTS

Environmental Science Associates

Dail B. Miller – Project Director
Tim Morgan – Project Manager, Utilities and Services Systems
Matthew Trask, Stuart Russell – Aesthetics, Recreation
Clint T. Meyer – Agricultural Resources, Cultural Resources, Mineral Resources
Robert Vranka, Ph.D. – Air Quality
Phillip W. Reiger, Ph.D. – Biological Resources
Jennifer Schulte – Geology and Seismicity
Crystal Stech - Hazardous Materials
Judith Garland, P.E. - Hydrology and Water Quality
Deborah Kirtman – Land Use, Population, Housing, Public Services, Recreation
Jyothi Iyer – Noise, Air Quality
Paul Mitchell - Traffic and Transportation
Iolande Argent – Word Processing
Gus JaFolla – Administrative and Report Production
Perry Jung – Graphics

Alvin L. Franks – Geology, Hazardous Materials
Alvin L. Franks, Ph.D.

Cassidy, Shimko & Dawson - Legal Review
Anna Shimko, Esq., Partner

Public Affairs Management – Public and Agency Outreach
Charles Gardiner – Principal
Elisa Echeverria - Associate
Deborah Fleischer - Associate

4.2 PUBLIC AGENCY OUTREACH MEETINGS AND CONSULTATIONS

The CPUC conducted two meetings to provide the government agencies opportunities to discuss the proposed pipeline sale and identify significant environmental issues that should be considered in the preparation of the Initial Study and Final Mitigated Negative Declaration. The location of these meetings is listed below.

4.2.1 AGENCY MEETINGS

March 5th , 2001
City of Hercules City Hall
Hercules, California

Attendees:

Name	Organization	Address
Mike Sakamoto, Erwin Blancatlor, Dennis Tagashira	City of Hercules	111 Civic Drive, Hercules CA 94547
Cate Burkhert, Jack Schreder, Gary Freschi	West Contra Costa County School District	1108 Bissel Avenue, Richmond CA 94801
Jim Townsend	East Bay Regional Parks District	2950 Peralta Oaks Court, Oakland CA 94605
Jim Lopeman	New Pacific Developments	Not available

November 15th, 2001
City of Hercules City Hall
Hercules, California

Attendees:

Name	Organization	Address
Ed Balico	City of Hercules	111 Civic Drive, Hercules CA 94547
Gary Freschi	West Contra Costa County School District	1108 Bissel Avenue, Richmond CA 94801
Steve Lawton	City of Hercules	111 Civic Drive, Hercules CA 94547
Michael Sakamoto	City of Hercules	111 Civic Drive, Hercules CA 94547
Dennis Tagashira	City of Hercules	111 Civic Drive, Hercules CA 94547
Jim Townsend	East Bay Regional Parks District	2950 Peralta Oaks Court, Oakland CA 94605
Caroleen Toyama	IT Corp	4005 Port Chicago Hwy, Concord CA 94520

4.2.2 ORGANIZATIONS AND PERSONS CONSULTED

The following agency representatives and individuals were consulted regarding the proposed pipeline sale project:

Union Pacific Railroad
Mary Hoffchild, Manager of Contracts

U. S. Army Corp of Engineers
Molly Martindale

US Department of Transportation, Office of Pipeline Safety
Jim Taylor

DFG
Barbara Foster, Oil Spill Prevention Specialist
Nicolle Kozicki, Contra Costa County warden

California EPA, Department of Toxic Substances
Eric Haher or Gary Murchison

State Office of Historic Preservation
Chuck Whatford and Jenan Saunders

State Lands Commission
Nancy Smith

Bay Area Air Quality Management District
Greg Stone

Regional Water Quality Control Board
Kristin Boshin

Bay Conservation and Development Commission
Steve McAdams, Deputy Director

East Bay Regional Parks Department
Steve Siala, Regional Trails Manager
Jim Townsend, Real Estate Representative

Contra Costa County Planning
Catherine Kutsuris, Deputy Director, Community Development

Contra Costa County Health Services
Hazardous Materials Section
Lou Buscali

Western Contra Costa County School District
Gary Freshi, Director
Jack Schreder, Consultant

Cate Burkhart, Facilities Specialist

City of Hercules
Mike Sakamoto, City Manager
Erwin Blancatlor
Dennis Tagashira

City of Martinez
Kathy Munneke

City of Pinole
David Dowswell

City of Richmond
Martin Jacobsen

City of San Pablo
Adella Hoe

City of Pittsburg
Nasser Shirazi
Chris Bekiaris

4.3 PUBLIC MEETING

November 15th, 2001
Las Juntas Elementary School
Martinez, CA

Attendees:

Name	Organization	Address
Craig Bettencourt	Santa Clara Valley Housing Group	404 Saratoga Avenue, Ste. 100, Santa Clara CA 95050
Jeff Bricker	Mirant Corp.	P.O. Box 150, Pittsburg CA 94565
Rick Jurgens	Contra Costa Times	2640 Shadelands, Walnut Creek CA 94598
Peter Hanschen	Morrison & Foerster LLP	101 Ygnacio Valley Road, Walnut Creek CA 94596
Paul Holton	PG&E	77 Beale Street, San Francisco CA 94105
Robert A. McElroy, Jr.	Tosco Corp., Sub. of Phillips Petro	9645 Santa Fe Springs Road, Santa Fe Springs CA 90670