

SECTION 2

ENVIRONMENTAL CHECKLIST & EXPANDED EXPLANATION

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1. Project Title: Pacific Gas & Electric Company's Richmond-to-Pittsburg Pipeline Divestiture (Application Nos. 00-05-035 and 00-12-008)
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 2.I for complete listings)
7. Zoning: Various (see Section 2.I for complete listings)
8. Description of Project:

Pacific Gas and Electric Company (PG&E) is seeking authority, through submittal of a Section 851 Application (No. A.00-05-035) to the California Public Utilities Commission (CPUC), to sell its heated Richmond-to-Pittsburg Fuel Oil Pipeline (the "Pipeline") to a new owner, the San Pablo Bay Pipeline Company (SPBPC), currently a subsidiary of ConocoPhillips Company. In a separate application (A.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 Pipeline as a common carrier pipeline corporation. The proposed sale would transfer ownership of PG&E's Hercules Pump Station (the

“Pump Station”) and its associated 44.2 acres of property, 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 Mirant Pittsburg Power Plant in the city of Pittsburg. The Pipeline and Pump Station, collectively referred to herein as the “Assets,” would be sold in their current “as-is, where-is, with all faults” condition to SPBPC. Subsequent to the Commission’s decision authorizing the sale of the Assets, but prior to the actual sale by PG&E, ConocoPhillips has indicated that it intends to sell its sole ownership interest in SPBPC to the Santa Clara Valley Housing Group (SCVHG). SPBPC has indicated that upon completion of the sale by PG&E, it would then abandon the Pump Station and remove it from public utility service. SCVHG would then sell SPBPC to Shell and would retain the Pump Station and its associated 44.2 acres of property. SCVHG would demolish the Pump Station and likely remediate the land on which the Pump Station is located in order to reuse it for residential and/or commercial uses. Any action proposed for the Pump Station property by SCVHG would be subject to a separate environmental review by the City of Hercules. Ultimately, the Pipeline would be owned and operated by SPBPC, which would, per A.00-12-008, be operated as a subsidiary of Shell. 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:

As a result of the proposed divestiture, construction of the 5,500-foot replacement pipeline segment and future operations of the Pipeline by SPBPC, the following permits and approvals would be required:

5,500-Foot Pipeline Replacement Segment

- State Historic Preservation Office Section 106 review
- Regional Water Quality Control Board Appropriation of and disposal of hydrostatic test water/storm water runoff during construction / NPDES Permit.
- U.S. Army Corps of Engineers Section 404 permit
- San Francisco Bay Conservation and Development Commission permit
- Streambed Alteration Agreement, California Fish and Game
- Bay Area Air Quality Management District welding permit
- Encroachment permits from the East Bay Regional Park District, City of Martinez
- Union Pacific Railroad work permit

Other Permits for Resumption of Pipeline Operations by SPBPC

- Prior to restarting operations of the Pipeline, verification of chemical compatibility of the Pipeline with its proposed uses by the State Fire Marshal and approval by the State Fire Marshal to return the Pipeline to “Active Pipeline” status.
- Department of Fish and Game, Office of Spill Prevention and Response approval of SPBPC spill prevention and countermeasure plan.
- Encroachment permits from the East Bay Regional Park District, City of Richmond, City of San Pablo, City of Pinole, City of Martinez, City of Pittsburg, and Contra Costa County.
- Modifications of Franchise Agreements from Contra Costa County, City of Richmond, City of Pinole, City of Hercules, and City of Martinez.

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.

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology / Soils |
| <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning |
| <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing |
| <input checked="" type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation / Traffic |
| <input checked="" type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> 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.

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

SETTING

The 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. Currently, above-ground facilities are limited to the Hercules Pump Station in the city of Hercules and a one-mile section of pipeline that is above-ground 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 four physical geographic 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 Strait, Suisun Bay, Honker Bay, and 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 right-of-way, which parallels the shoreline of San Pablo Bay.

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 above-ground for approximately one mile. The framework and Pipeline are concealed from the nearby public highway by the elevated Union Pacific Railroad 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. Views along the Pipeline corridor through the U.S. Naval Weapons Station section are primarily of 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.

VISUAL CHARACTER AND LOCAL PLANS AND POLICIES

While the only project impact to aesthetics would result from construction of the proposed 5,500-foot replacement pipeline segment in the city of Martinez (see *Aesthetics Impacts Discussion*, below), the following information is provided for background purposes.

City of Richmond

The visual elements along the Pipeline corridor include the San Pablo Bay waterfront, as well as various urban and industrial developments. The Pipeline is located entirely underground and within the Union Pacific Railroad right-of-way in the city of Richmond.

The Richmond General Plan contains an inventory of visual features (in Section C, *Survey of the Built Environment*) and scenic routes and corridors (contained in Section F, *Survey of Transportation and Circulation*). The General Plan identifies Interstate 580, the Richmond Parkway, Western Drive, and San Pablo Dam Road as visual features within the city. In addition, the General Plan identifies Mount Tamalpais, San Francisco Bay, the San Francisco Shoreline, San Pablo Bay, the South Shoreline Area, the West Shoreline Area, the Potrero-San Pablo Hills, the North Shoreline Area, the East Bay Hills, Albany Hill, and Brooks Island as stationary vistas (City of Richmond, 1994).

City of Pinole

Goal OS2 in the City of Pinole General Plan is to “enhance the City of Pinole’s character by protecting key visual resources.” Visual resource protection policies relevant to the Pipeline include:

- Policy OS2.1 – Scenic Resources: Preserve significant knolls, stands of trees, rock outcrops, and ridgelines within the city that further the image of Pinole.
- Policy OS2.2 – View Protection: Preserve prominent views of scenic resources and the bay, and consider visual access and view corridors when reviewing development proposals.
- Policy 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).
- Policy 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.

City of 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, “[p]roposed 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 PG&E property between San Pablo Avenue and I-80, north of Highway 4. Most of the Pump 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 primarily developed with single-family residential uses. The visible above-ground facilities at the Pump Station include buildings, storage tanks, pumps, and heater stations, transformers, utility lines, evaporation ponds, and an impounding basin.

City of Martinez

The City of Martinez has adopted specific open space “policy zones” to address concerns regarding preservation of scenic areas. The policy regarding the waterfront area, along which the 5,500-foot replacement pipeline segment runs, states “[t]he 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 5,500-foot replacement pipeline segment would be partially located within the Martinez Regional Shoreline Park. The Union Pacific Railroad right-of-way forms a strong visual boundary that separates 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 Equilon Martinez Refining Company. Residential and industrial areas lie to the south and the Franklin Hills Open Space and Carquinez Strait Regional Shoreline Park are to the west.

City of Pittsburg

The City of Pittsburg 2020 General Plan Urban Design Element provides hillside and ridgeline preservation policies, identifies local views and city edges, outlines improvement strategies for key corridors within the City, and contains policies relating to design and development of residential neighborhoods. According to the General Plan, the most identifying feature lending Pittsburg a sense of character is its location between the rolling, grassy hills to the south and Suisun Bay/Sacramento River Delta to the north. Views of both natural features are important to the visual quality of the community. From the flatland areas of Pittsburg, views of the southern hills are prominent. Rolling, grassy slopes and the larger, vegetated mountains of Black Diamond Mines Regional Preserve rise to meet the skyline. Through streets designed in a north-south configuration afford views of the hills. Larger open spaces, such as the Civic Center and Stoneman Park, also provide unobstructed views.

Visual resource protection policies relevant to the Pipeline include:

- Policy 4-P-61: Retain views of the southern hills from the State Route 4 corridor, through implementation of ridgeline preservation policies.
- Policy 4-P-62: Support local utility providers—such as PG&E—in the undergrounding of utility wires.

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.

AESTHETICS IMPACTS DISCUSSION

- a) Under the proposed project, 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 would be sold to SPBPC, which would then abandon the Pump Station and sell the property to SCVHG and operate and maintain the Pipeline. However, an approximately 4,000-foot section of pipeline located within the city of Martinez was previously capped, filled, and isolated to allow construction of the Martinez Intermodal Rail Station. Under the proposed project, SPBPC would replace this section of the Pipeline by constructing a new re-routed underground 5,500-foot replacement pipeline segment as shown in **Figure 1-2**. Much of the Pipeline route travels through areas that are of local importance either as viewpoints of local natural features, including San Pablo Bay, the 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 proposed new route for the underground 5,500-foot replacement pipeline segment travels near important aesthetic resources, including the East Bay Regional Park District's (EBRPD) Martinez Regional Shoreline Park, the Waterfront Park, the Martinez City Park, Historic Downtown Martinez, the Carquinez Straight Shoreline Park, and the Carquinez Scenic Drive.

For the existing Pipeline, located primarily within Union Pacific Railroad or public street rights-of-way, the transfer of ownership from PG&E to SPBPC and SPBPC's subsequent operation of the Pipeline would have little to no effect on aesthetic resources along the Pipeline route. In addition, under the proposed project, SPBPC would abandon the Pump Station and transfer the land to SCVHG, who would then likely demolish all of the Pump Station components, which could result in a beneficial aesthetic impact. Potential environmental impacts that could result from the demolition and removal of the Pump Station will be considered in a future CEQA document prepared by the City of Hercules as part of the review of SCVHG's required application to develop the former Pump Station's 44.2-acre property.

Therefore, the project's only likely potential aesthetics impact would result from the temporary construction activities of the 5,500-foot replacement pipeline segment in the city of Martinez. SPBPC has not yet announced its schedule for the construction of the 5,500-foot replacement pipeline segment. However, this replacement segment would be located along a portion of the Martinez Regional Shoreline Park, which has a scenic view of the San Pablo Bay. Construction activities associated with the replacement pipeline segment would be visible from the park and the downtown Martinez area.

Since the crossing at Alhambra Creek and the unnamed drainage near Ferry Street is to be performed by underground auguring or directional drilling and the property would be

landscaped, there would be no permanent aesthetic impacts during future operations of the underground Pipeline. In addition, because the 5,500-foot replacement pipeline segment would only result in temporary construction impacts and because it would be fully underground once completed, the proposed project would be consistent with the City of Martinez General Plan which requires that the waterfront remain unimproved and devoted to open space.

Impact 2.A-1: Construction activities associated with the 5,500-foot replacement pipeline segment in Martinez could have a temporary impact on public scenic vistas viewable from the Martinez Regional Shoreline Park and from portions of the city of Martinez. In addition, placement of above-ground valve stations would be viewable where no such components currently exist. This would be a less than significant impact with implementation of Mitigation Measures 2.A-1a and 2.A-1b.

Mitigation Measure 2.A-1a: Prior to commencing construction activities, SPBPC shall coordinate construction activities that would affect parklands and trail systems with EBRPD and the City of Martinez. Coordination efforts shall include submittal of an aesthetic resources plan to the City of Martinez and EBRPD that shall address 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 of Martinez and EBRPD. The plan shall also include details of the methods of shielding and placement of new above-ground valve stations that would be viewable where no such facilities currently exist. The Plan shall include specific measures to ensure that the above-ground valve stations are appropriately shielded from view (i.e., through placement of such equipment behind natural features such as trees). The Plan shall also include specific measures (i.e., grading, landscaping, etc.) to ensure that the replacement pipeline segment is restored to pre-project conditions. SPBPC shall not commence construction activities along the replacement pipeline segment in Martinez until the aesthetics resource plan is reviewed and approved by EBRPD, the City of Martinez, and CPUC staff. The CPUC's mitigation monitor shall verify compliance with the aesthetics resource plan during construction of the replacement pipeline segment.

Mitigation Measure 2.A-1b: After construction activities associated with the 5,500-foot replacement pipeline segment have been completed, SPBPC and/or its contractor(s) shall restore landscaped areas to preconstruction conditions in accordance with the approved aesthetics resource plan. The CPUC mitigation monitor shall verify SPBPC's compliance with this measure.

Significance After Mitigation: Less than significant.

- 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 5,500-foot replacement segment also travels through the Martinez Regional Shoreline to the west of Martinez, but the replacement pipeline segment would be located entirely underground and therefore it would not permanently affect the views from the roadway. Though historic buildings are within 1/4 mile of the replacement pipeline segment route in Martinez, construction of the replacement segment would not likely have any effect on nearby historic buildings. The potential for the project to substantially damage scenic resources, including trees and rock outcroppings along Carquinez Straight Scenic Drive, 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 5,500-foot replacement pipeline segment route.

Impact 2.A-2: Vegetation removal, construction activity, and installation of the proposed 5,500-foot replacement pipeline segment in Martinez could affect local scenic resources in the vicinity of the construction activities. This would be less than significant impact with implementation of Mitigation Measure 2.A-2.

Mitigation Measure 2.A-2: Implement Mitigation Measures 2.A-1a and 2.A-1b.

Significance After Mitigation: Less than significant.

- c) The Pipeline (most of which is located below-ground) 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 Union Pacific Railroad 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 Pipeline route. The potential for the construction of the 5,500-foot replacement pipeline segment in Martinez to substantially degrade the visual quality and character of the area is similar to the potential to damage scenic resources or scenic vistas. The planned route for the 5,500-foot replacement section borders parklands and other important scenic resources, with lush vegetation being the primary visual character for park visitors. With proper construction and restoration techniques, the underground replacement pipeline segment 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 above-ground 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 above-ground components, the project would likely not substantially degrade the visual character or quality of the project area.

Impact 2.A- 3: Vegetation removal, construction activity, and installation of the proposed 5,500-foot replacement section in Martinez could degrade the existing visual character and quality of the project area. This would be a less than significant impact with implementation of Mitigation Measure 2.A-3.

Mitigation Measure 2.A-3: Implement Mitigation Measures 2.A-1a and 2.A-1b.

Significance After Mitigation: Less than significant.

- d) Operation of the existing Pipeline and construction of the 5,500-foot replacement pipeline segment would not introduce 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 – Aesthetics

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

City of Martinez, *City of Martinez General Plan*, amended January 1995.

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

City of Pittsburg, *City of Pittsburg General Plan*, October 2004.

City of Richmond, *City of Richmond General Plan*, 1994.

Contra Costa County, *Contra Costa County General Plan 1995 – 2010*, July 1996.

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

Olsen, Brad, Environmental Programs Manager, East Bay Regional Park District, personal communication, October 12, 2004.

Pacific Gas and Electric Company (PG&E), *Supplement to 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*, May 2004.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
B. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

REGIONAL 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.

PROJECT SETTING

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 Farmland, Farmland of Local Importance, or Unique Farmland. A small portion of land to the east of the Hercules Pump Station, although not part of the Pump Station property, is designated as *Farmland of Statewide Importance* (California Department of Conservation, 1998). These lands are not intersected by the actual Pipeline alignment.

The majority of the Pipeline lies within the Union Pacific Railroad right-of-way, where several utility lines also exist. Land adjacent to this easement is primarily residential, commercial, and industrial. 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. 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 (PG&E, 2004).

The Pipeline originates within the city of Richmond immediately adjacent to the General Chemical facility within the Union Pacific Railroad right-of-way. Land uses adjacent to the 100-foot Union Pacific Railroad 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 Richmond General Plan Open Space and Conservation Element.

The North Richmond Shoreline Specific Plan Environmental Impact Report refers to a 50-acre parcel consisting of dry cultivated pasture south of Rheem Creek and west of the Union Pacific Railroad right-of-way (PG&E, 2004). According to the document, agricultural 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 that involve seasonal livestock grazing (City of Hercules, 1998 and City of Pinole, 1995). Properties that contain these uses are not traversed by the Pipeline alignment. The Briones Hills Agricultural Preserve is located 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 (PG&E, 2004). 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 5,500-foot replacement pipeline segment in 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 Union Pacific Railroad right-of-way in 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 (Contra Costa County, 1996) and are a considerable distance outside of the pipeline corridor.

REGULATORY SETTING

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 a Williamson Act contract can be in either a renewable or nonrenewable status. Lands with a nonrenewable status indicate the farmer has withdrawn from its 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.

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 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, 2004). Four categories of farmland are designated by the FMMP: [1] *Prime Farmland*, [2] *Farmland of Statewide Importance*, [3] *Unique Farmland*, and [4] *Farmland of Local Importance*. All of the above categories of farmland 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).

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 uses that 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*, or *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, to non-agricultural

use. Additionally, the construction of the 5,500-foot replacement pipeline segment in Martinez would occur within the Martinez Regional Shoreline Park, which is used as open space. Therefore, construction and operation of the new 5,500-foot replacement pipeline segment would not result in conversion of farmland to non-agricultural use. As a result, there would be no impact related to conversion of any agricultural lands.

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 the existing agricultural zoning designation, or Williamson Act contract. As a result, there would be no impact and per County Policy 8-33 agriculture will continue to operate in areas adjacent to urban uses.

REFERENCES – Agricultural Resources

California Department of Conservation, <http://www.consrv.ca.gov/DLRP/fmmp/>, accessed October 20, 2004.

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

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

City of Richmond, *City of Richmond General Plan*, 1994.

Pacific Gas and Electric Company, *Supplement to 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*, May 2004.

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

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

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
C. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

The Pipeline 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 Pipeline is located within the San Francisco Bay Area Air Basin (Basin). The Basin covers all or part of the nine counties in the San Francisco Bay region and the airshed has been designated by the California Air Resources Board (CARB) as nonattainment for 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 PM-10 standard. The Basin 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 (1999 to 2003) at five monitoring stations in Contra Costa County¹ have shown occasional exceedances of the State and Federal ozone standards and of the State PM-10 standard.

¹ San Pablo, Concord, Crockett, Martinez, and Pittsburg BAAQMD monitoring stations.

REGULATORY SETTING

U.S. ENVIRONMENTAL PROTECTION AGENCY / CALIFORNIA AIR RESOURCES BOARD / BAY AREA AIR QUALITY MANAGEMENT DISTRICT

U.S. EPA is responsible for implementing the myriad programs established under the Clean Air Act (CAA) which include establishing and reviewing the National Ambient Air Quality Standards (NAAQS) and judging the adequacy of State Implementation Plans (SIP), but has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented. CARB, the State's air quality management agency, is responsible for establishing and reviewing the state ambient air quality standards, compiling the California SIP and securing approval of that plan from U.S. EPA, and identifying toxic air contaminants. CARB also oversees the activities of air quality management districts, which are organized at the county or regional level. As a general matter, U.S. EPA and CARB regulate emissions from mobile sources (e.g., vehicles and trains) and the air districts (e.g., BAAQMD) regulate emissions from stationary sources associated with industrial and commercial activities.

CLEAN AIR ACT

Under the federal CAA Amendments of 1990, federal agencies must determine a project's conformity with the SIP before taking any action. Conformity with the SIP is defined in the CAA Amendment as conformity with the SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards. The General Conformity Rule (40 CFR 93.150) applies to general projects in areas designated "non-attainment" or "maintenance" and covers direct and indirect emissions of criteria air pollutants or their precursors that are caused by a federal action, are reasonably foreseeable, and can practicably be controlled by the federal agency through its continuing program responsibility. However, the requirements of the General Conformity Rule do not apply if the federal action would result in a *de minimis* increase in emissions. Within the Bay Area Air Basin, these *de minimis* thresholds are 100 tons per year of O₃ precursors (ROG and NO_x) and CO, equivalent to 548 pounds per day.

AIR QUALITY IMPACT DISCUSSION

The sale of the Pipeline is based on its current CPUC-approved use as modified by this proposed project, to restrict the products that could be transported in the Pipeline to crude oils, black oils, and refined petroleum products. Air quality impacts are discussed below for the construction of the 5,500-foot replacement pipeline segment and operation of the Pipeline. Potential air quality impacts that could result from the demolition and removal of the Pump Station will be considered in a future CEQA document prepared by the City of Hercules as part of its review of SCVHG's application to develop the Pump Station property. After the Pump Station is demolished, environmental site remediation would likely occur under the regulatory oversight of DTSC. The

City of Hercules will conduct a separate CEQA review for proposed future development of the Pump Station property when an application is made by SCVHG.

- a) The proposed project would not conflict with or obstruct the implementation of air quality plans in the BAAQMD since all permitted air pollution emission sources would no longer be operated. Additionally the 2000 BAAQMD Clean Air Plan (CAP) for the region already includes these permitted emission sources from the Pump Station and therefore the project would not conflict with the BAAQMD CAP. Operation of the Pipeline with the same or similar products that it had been historically used for would not result in significant air emissions.
- b) During construction of the 5,500-foot replacement pipeline segment in Martinez, 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. 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 1/3 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 (NO_x 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 2.C-1: Emissions from construction-related activities would result in a temporary increase in local particulate matter concentrations. This would be a less than significant impact with implementation of Mitigation Measure 2.C-1.

Mitigation Measure 2.C-1: SPBPC shall implement the following fugitive dust control and emissions reduction measures during construction of the 5,500-

foot replacement pipeline segment. BAAQMD requires the following measures to ensure that construction impacts are less than significant:

- **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.

Under the proposed project, SPBPC would abandon the Hercules Pump Station, which is the only portion of the existing Assets that generates measurable air pollutant emissions. In the future to return the Pipeline to full operation, SPBPC would need to locate and install a new pump station, as explained in Section 1, *Project Description*. It is not known at this time where or when this new installation would occur. However, installation of a new future pump station would be subject to additional environmental review and a require BAAQMD permit to operate.

- c) Future operation of the Pipeline would not result in a significant cumulatively considerable increase of any criteria pollutant emission for which the region is in nonattainment as the enclosed Pipeline has no direct emissions to the atmosphere. To return the Pipeline to full operation, SPBPC would need to locate and install a new pump

station, as explained in Section 1, *Project Description*. It is not known at this time where or when this new installation would occur and this new future pump station would be subject to additional environmental review as it would require BAAQMD permit to operate.

Emissions from construction-related activities would result in a temporary cumulatively considerable increase in NO_x and PM-10 emissions, which are the principal contributors to ozone. Please see Table 2.Q-1 in Section 2.Q, *Mandatory Findings of Significance* for a list of cumulative projects.

Impact 2.C-2: Emissions from construction-related activities would result in a temporary cumulatively considerable increase in local NO_x and PM-10 emissions. The increase would be reduced to less than cumulatively considerable with implementation of Mitigation Measure 2.C-2

Mitigation Measure 2.C-2: Implement Mitigation Measure 2.C-1

Significance After Mitigation: Less than significant.

- d, e) When SPBPC returns the Pipeline to normal operations it is unlikely that the Pipeline would expose sensitive receptors to substantial pollutant concentrations or create objectionable odors that would affect a substantial number of people as there are no emissions or odors from the enclosed Pipeline. When SPBPC applies to construct and operate a future pump station, an additional CEQA review would be required and the BAAQMD will likely require that the future pump station be permitted and operated according to district rules for minimizing objectionable odors and controlling pollutant emissions.

REFERENCES – Air Quality

Bay Area Air Quality Management District, *Bay Area 2000 Clean Air Plan*, December 2000.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
D. 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

INTRODUCTION

This section describes the biological resources on the project site and evaluates the potential impacts of the proposed project on those resources.

This section focuses on the biological resources within and adjacent to the proposed 5,500-foot replacement segment where construction activities will occur. The biological resources present, or likely present, on the project site were determined from biological reconnaissance surveys conducted by ESA biologists in February 2001 and September 2004 at the Hercules Pump Station and along the 5,500-foot replacement pipeline segment within the city of Martinez and a review of a list of plant and animal species of concern for the project region provided by the U.S. Fish and Wildlife Service (USFWS) Endangered Species Office (USFWS, 2004). In addition, ESA conducted searches of the California Department of Fish and Game (CDFG) California Natural Diversity Data Base (CNDDB) and the California Native Plant Society's (CNPS) Electronic

Inventory (CDFG, 2004; CNPS, 2004) for the U.S. Geological Survey (USGS) 7.5-minute quadrangles located within the project area.

SETTING

PUMP STATION

The site of the 44.2-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 vegetated 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 access limited only to station personnel. Open lands on the property offer habitat for a variety of semi-urban wildlife. A site visit by ESA staff in February 2001 revealed evidence of raptor use of the area. A large nest, potentially belonging to a raptor, was observed on one of the large storage tanks on the property. Several airborne raptors, probably red-tailed hawks (*Buteo jamaicensis*), were observed overhead. The widely spaced trees within the property's grasslands provide ideal raptor foraging opportunities, while the relatively unused grasslands provide an abundance of small mammals as valuable raptor prey.

The retention ponds and adjacent stream provide some limited riparian and wetland habitat and may be considered jurisdictional by the Corps and/or CDFG¹. 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

The Pipeline corridor generally follows along the shorelines of San Pablo Bay, Carquinez Strait, and Suisun Bay. The Pipeline is mostly located underground with the exception of several above ground valve stations such as the Pump Station and a small valve station east of Martinez. Properties adjacent to this easement consist primarily of open parkland, residential, commercial,

¹ Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act give the Corps jurisdiction and regulatory authority over wetlands and water-associated habitats. Under Sections 1600-1607 of the California Department of Fish and Game Code, CDFG regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. Construction activities within the jurisdiction of the Corps and CDFG would require a permit from those agencies. See Regulatory Setting below for further discussion of regulations applicable to the project area.

and industrial land uses. 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 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 (*Buteo swainsoni*), bald eagle (*Haliaeetus leucocephalus*), and northern harrier (*Circus cyaneus*). 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 (*Oncorhynchus mykiss*) and Chinook salmon (*Oncorhynchus tshawytscha*), 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.

5,500-FOOT REPLACEMENT PIPELINE SEGMENT

To restore the Pipeline to full operation, installation a new 5,500-foot replacement pipeline segment would be required along the southern perimeter of a portion of the Martinez Shoreline Park to replace a 4,000-foot isolated segment of the Pipeline. The Park at this location encompasses the confluence of Alhambra Creek with Suisun Bay. Marsh restoration activities within the Park, including widening of Alhambra Creek to create a flood terrace and restore the wetlands to full tidal influence, were completed in 2001 and habitat monitoring within the restored areas has been ongoing (Olson, 2004).

Within the project area, Alhambra Creek is surrounded by residential and industrial development to the west, south, and east. A thin band of non-native grasses and other ruderal upland plant species lies between the wetlands of Alhambra Creek and the adjacent development. Downstream of the project area, Alhambra Creek widens as it flows through the salt marshes of Martinez Shoreline Park. Upstream of the project area, the creek passes through downtown Martinez and is highly channelized with vertical stone and concrete banks. Alhambra Creek is tidally influenced and supports both brackish emergent marsh and salt marsh habitats within the project area. Cattails (*Typha* sp.) and rushes (*Scirpus* sp.) are the dominant wetland species in the upper marsh zone along the banks and within the upstream reach of the creek adjacent to the railroad bridge crossing. The lower marsh zone includes salt-tolerant species such as cordgrass (*Spartina* sp.) and patches of pickleweed (*Salicornia virginica*) on the restored mud flats along the eastern side of the creek. This habitat is protected by several federal and state laws and regulations described below, as well as the conservation policies associated with the Park, such as the 1997 East Bay Regional Park District Master Plan (EBRPD, 1996). Both brackish emergent marsh and salt marsh communities are considered sensitive by CDFG because of historic and continuing loss of wetland habitats from agricultural conversion, urbanization, and flood control development, and because of they provide habitat for several special status species.

The band of emergent marsh vegetation along Alhambra Creek within the project area provides nesting and foraging opportunities and cover for water bird species and small mammals, including mallard (*Anas platyrhynchos*), green-winged teal (*Anas crecca*), great egret (*Ardea alba*), marsh wren (*Cistothorus palustris*), song sparrow (*Melospiza melodia*), red-winged blackbird (*Agelaius phoeniceus*), raccoon (*Procyon lotor*), and California vole (*Microtus californicus*). Extensive salt marsh with high wildlife habitat value is located downstream of the project area within the Park. Raptors that are typical of Bay Area salt marsh habitats include northern harrier, red-tailed hawk, and American kestrel (*Falco sparverius*). Migratory shorebirds that forage in the mudflats of Alhambra Creek during low tide include black-necked stilt (*Himantopus mexicanus*), American avocet (*Recurvirostra americana*), and marbled godwit (*Limosa fedoa*). During high tides, ducks that may be found in salt marsh environments include northern shoveler (*Anas clypeata*), American wigeon (*Anas americana*), northern pintail (*Anas acuta*), gadwall (*Anas strepera*), and canvasback (*Aythya valisineria*). In and among the pickleweed, salt marsh harvest mice (*Reithrodontomys raviventris*), and salt marsh wandering shrew (*Sorex vagrans halicoetes*) may occur in areas with high quality emergent wetlands and adjacent upland environs. Other common mammals in salt marsh habitats include house mouse (*Mus musculus*) and black-tailed jackrabbit (*Lepus californicus*).

East of Alhambra Creek, the project area includes a cleared unvegetated corridor between industrial development to the south and eucalyptus trees and salt marsh to the north. The eastern portion of the project area through the Park includes paved areas, and ornamental landscaping with some native coast live oaks (*Quercus agrifolia*) along the southern Park boundary. The Pipeline corridor crosses an unnamed tributary to Alhambra Creek near Di Maggio Way. This drainage supports freshwater emergent marsh dominated by cattails and willow riparian habitat.

Riparian habitats support an abundant assortment of common reptiles and amphibians that feed on plants and the abundant terrestrial and aquatic invertebrates. Resident and migratory birds found in riparian habitats include song sparrow, spotted towhee (*Pipilo maculatus*), yellow-rumped warbler (*Dendroica coronata*), and white-crowned sparrow (*Zonotrichia leucophrys*). Scrub jays (*Aphelocoma californica*) and black phoebe (*Sayornis nigricans*) also forage extensively in riparian forest habitats. Mammals such as western harvest mouse (*Reithrodontomys megalotis*), deer mouse (*Peromyscus maniculatus*), opossum (*Didelphis virginiana*), and raccoon also utilize streamside habitats for nesting and foraging. Raptors that nest in riparian habitats and ornamental trees include red-tailed hawk, sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), white-tailed kite (*Elanus leucurus*).

SPECIAL-STATUS SPECIES

Several species known to occur in the vicinity of the 5,500-foot replacement pipeline segment are protected pursuant to federal and/or State endangered species laws, or have been designated as Species of Concern by the USFWS or Species of Special Concern by the CDFG. In addition, CEQA Guidelines Section 15380(b) provides a definition of rare, endangered, or threatened species that are not included in any listing.² Species recognized under these terms are collectively referred to as "special-status species." For purposes of this Initial Study, special-status species include:

- Plant and animal species designated as rare, threatened or endangered under the federal or State endangered species acts;
- Species that are candidates for listing under either federal or State law;
- Species designated by the USFWS as Species of Concern or by CDFG as Species of Special Concern;
- Species protected by the federal Migratory Bird Treaty Act (16 U.S.C. 703-711);
- Bald and golden eagles protected by the federal Bald Eagle Protection Act (16 U.S.C. 668); and
- Species such as candidate species that may be considered rare or endangered pursuant to Section 15380(b) of the CEQA Guidelines.

Fifty-four special-status plant and wildlife species are known to occur in the project region (see Appendix A) and were evaluated for their potential to occur within the 5,500-foot replacement pipeline segment. Based on a review of known occurrences of these species (CDFG, 2004; CNPS, 2004), the project site was determined to provide potential habitat for 40 special-status species described below. Although, in general, the Pipeline corridor could provide habitat for the special-status species described below, the narrow 5,500-foot replacement pipeline corridor

² For example, vascular plants listed as rare or endangered or as List 1 or 2 by the CNPS are considered to meet Section 15380(b).

crosses Alhambra Creek at the southern edge of the restored marsh and open reach of the creek – separating this habitat from industrial and transportation land uses. Marsh restoration activities have improved habitat quality along Alhambra Creek. However, the remaining portion of the pipeline replacement corridor is located on previously disturbed land with mostly non-native ornamental vegetation. As such, the value of the pipeline replacement corridor habitat for special-status species is lower than that of the expansive salt marsh to the north within Martinez Shoreline Park. Therefore, wildlife species would have a lower potential to use this area which is immediately adjacent to automobile roadways and parking, industrial buildings, and other developed property.

Special-Status Plant Species

Brackish marsh and salt marsh habitats in the project area have the potential to support the following rare or endangered plant species: soft bird's beak (*Cordylanthus mollis* ssp. *mollis*), Mason's lilaepsis (*Lilaeopsis masonii*), and California seablite (*Suaeda californica*). In addition, these areas and the Pipeline corridor also may support 13 non-listed special-status plant species listed in Appendix A. Prior to marsh restoration activities in 1999, plant surveys of the replacement pipeline project area were completed prior to marsh restoration activities in 1999 and did not identify any special-status plants within this area (Olson, 2004). However, special-status plant species historically occurring in this area, such as soft bird's beak, Mason's lilaepsis, Suisun marsh aster (*Aster lentus*), delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), Delta mudwort (*Limosella subulata*), California seablite (*Suaeda californica*), Point Reyes bird's beak (*Cordylanthus maritimus* ssp. *palustris*), rose-mallow (*Hibiscus lasiocarpus*), hairless popcorn-flower (*Plagiobothrys glaber*), saline clover (*Trifolium depauperatum* var. *hydrophilum*) have a low potential to occur along the replacement pipeline corridor within the restored marsh of Alhambra Creek.

Special-Status Fish Species

Restoration activities within Alhambra Creek and its adjacent wetlands included creation of habitat for Delta smelt (*Hypomesus transpacificus*), Chinook salmon and other special-status fish species potentially occurring within the creek such as steelhead, Sacramento splittail (*Pogonichthys macrolepidotus*), green sturgeon (*Acipenser medirostris*), river lamprey (*Lampetra ayersi*), Pacific lamprey (*Lampetra tridentata*), and longfin smelt (*Spirinchus thaleichthys*). These species may spawn upstream of the project site and juvenile fish may occur within aquatic habitat in the project area. A small run of steelhead has been documented within Alhambra Creek within the last few years (Olson, 2004).

Special-Status Amphibian and Reptile Species

Tidal influence results in high salinities within the downstream reach of Alhambra Creek and brackish conditions within the replacement pipeline project area. Salt-tolerant plant species such as cordgrass, pickleweed, and marsh gumplant (*Grindelia* sp.) grow in these areas. California

red-legged frogs (*Rana aurora draytonii*) are not expected within brackish or salt marsh habitat in the project area. However, this species has a low potential to occur within upstream reaches of Alhambra Creek and the unnamed drainage near Di Maggio Way. Alhambra Creek and the unnamed drainage have potential to support northwestern pond turtle (*Clemmys marmorata marmorata*) as well.

Special-Status Bird Species

Alhambra Creek and its adjacent wetlands provide habitat for several special status bird species. California clapper rails (*Rallus longirostris obsoletus*) and California black rails (*Laterallus jamaicensis coturniculus*) nest and forage in tidal emergent marshes with pickleweed, cordgrass and bulrush. Surveys for these species were completed prior to marsh restoration activities in 1999 within the replacement pipeline project area and did not identify these species (Olson, 2004). However, restoration activities have increased brackish emergent marsh and salt marsh habitat within the replacement pipeline project site. In addition, high quality marsh habitat is located north of the project area within the Park. Thus, California black rail and California clapper rail may forage in the project area and have a low potential to nest within the project area as well.

Additional special-status bird species that may forage and nest in wetlands within the Park, the unnamed drainage, or at other wetland locations along the Pipeline alignment include: tricolored blackbird (*Agelaius tricolor*), short-eared owl (*Asio flammeus*), black tern (*Chlidonias niger*), northern harrier, saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), Suisun song sparrow (*Melospiza melodia maxillaris*), and long-billed curlew. An occurrence of California least tern (*Sterna antillarum browni*) is reported north of the Pipeline corridor near Pittsburg (PG&E, 2000). In addition, riparian habitat at the Pump Station and within the unnamed drainage, as well as oaks and ornamental trees within the Park have the potential to support nesting Cooper's hawk, sharp-shinned hawk, white-tailed kite and other raptors.

SPECIAL-STATUS MAMMAL SPECIES

Special status mammals with potential to occur within salt marsh habitat along Alhambra Creek in the replacement pipeline project area and along the Pipeline corridor include salt marsh harvest mouse, San Pablo vole (*Microtus californicus sanpabloensis*), Suisun ornate shrew (*Sorex ornatus sinuosus*), and salt marsh wandering shrew. Trapping surveys have identified a population of salt marsh harvest mice within pickleweed habitat along the east side of Alhambra Creek adjacent to the replacement pipeline alignment (Olson, 2004). The other three species have not been documented within the project area and trapping surveys did not identify these species. Thus, these species are considered to have a low potential for occurrence in the Pipeline corridor.

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 NOAA Fisheries as either endangered or threatened. 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 are required to consult with the appropriate agency regarding potential adverse impacts and mitigation development. Several species potentially occurring in and around the replacement pipeline segment in Martinez are designated threatened or endangered and protected by the ESA. Actions that might affect any of these species would require consultation with and potentially securing of necessary permits from USFWS and/or NOAA Fisheries.
- The California Endangered Species Act (CESA) protects plant or animal species designated by the Fish and Game Commission as either endangered or threatened. 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 are required to consult with the CDFG regarding potential adverse impacts and mitigation development. Several species potentially found in and around the replacement pipeline segment in Martinez are covered by CESA. Actions that might affect any of these species would require consultation with and potentially securing of any necessary permits from the CDFG.
- California Fish and Game Code Sections 1602 and 1603, also known as a Streambed Alteration Agreement, are administered by CDFG. This law requires any work within an area with a defined streambed to 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 would likely require a new 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 are 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 replacement pipeline segment may require a permit from the COE because the pipeline replacement may fill wetlands within Alhambra Creek and an unnamed drainage. Application of the CWA requires 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). Section 3503.5 of the California Fish and Game Code also prohibits taking of raptors and their nests. Raptors found at the Pump Station and along the Pipeline route would be protected by this Act and the State Fish and Game Code.
- The Contra Costa County tree protection and preservation ordinance requires project applicants to apply for and obtain permits for damage, removal, or ground disturbance within the dripline of protected trees. Protected trees include 26 species of native trees measuring twenty inches or larger in circumference and located within unincorporated areas of the county or in areas designated in the county general plan for recreational purposes or open space.

BIOLOGICAL RESOURCES IMPACT DISCUSSION

CONTINUED OPERATION OF THE PIPELINE CORRIDOR

Pipeline Corridor continued operation would have less than significant impacts on biological resources. Although the pipeline corridor passes through substantial areas of federally protected wetlands with habitat for special-status species primarily in the Martinez to Pittsburg segment, its operation would not alter biological resources in those areas because it would not require removal, filling, or hydrological interruption, or other actions affecting those wetlands and the plant and wildlife species within them. Access to the Pipeline for routine maintenance would occur on railway easement and other established disturbed corridors and would not disturb natural habitat.

An accidental pipeline spill would have the potential to adversely impact biological resources through hazardous materials contamination of Alhambra Creek and other wetland and water resources in the project area. This contamination could result in wetland habitat loss and degradation, loss of wildlife breeding success, and direct mortality of special-status plant and wildlife species. However, the existing Pipeline has been subject to frequent maintenance and inspection. This includes using a smart pig every five years to detect and measure pipe-wall deterioration, and to hydro-statically test the line for possible leaks. According to PG&E, the most recent test using a smart pig, as well as the latest hydrostatic test, indicated that the Pipeline is sound and can be re-activated without the need for repair or modification. Although the evidence thus indicates that the Pipeline is safe to operate, the new owner, given CPUC approval, would have to conduct additional smart pig and hydrostatic testing prior to operation to ensure that the pipeline is sound. These results would have to be submitted to the State Fire Marshall for its review in considering a request for “Active Status.”

To minimize any impacts of a possible pipeline leak, a leak detection system was incorporated into the system design. A possible leak would be detected through a loss in pressure, and remotely controlled isolation valves would respond rapidly to minimize oil loss. The isolation valves are inspected every six months to insure proper function. Existing shut-off valves nearest to Martinez are at Crockett approximately 0.5 mile east of the sugar plant along the railway and at the Shore Terminal station approximately mile east of the Shell Refinery. In addition, **Mitigation Measure 2.G-3** includes the installation of block valves along the pipeline at each end of Martinez Shoreline Park to protect Alhambra Creek and its associated wetlands from petroleum spill impacts. Therefore, there is a low probability for a spill to occur that could cause significant effects on biological resources and this potential impact is considered less than significant.

a)

5,500-FOOT REPLACEMENT PIPELINE SEGMENT

The 5,500-foot replacement pipeline segment in Martinez could result in significant impacts to special-status plant species discussed above (soft bird’s beak, Mason’s lilaepsis, Suisun marsh aster, Delta tulle pea, Delta mudwort, California seablite, Point Reyes bird’s beak, rose-mallow, hairless popcorn-flower, and saline clover) and the following special-status wildlife species with potential to occur within the project area: Delta smelt, Chinook salmon, steelhead, Sacramento splittail, green sturgeon, river lamprey, Pacific lamprey, longfin smelt, California red-legged frog, northwestern pond turtle, California clapper rail, California black rail, tricolored blackbird, short-eared owl, black tern, northern harrier, saltmarsh common yellowthroat, Suisun song sparrow, long-billed curlew, and salt marsh harvest mouse. These species are protected by laws and regulations administered by CDFG and USFWS and NOAA Fisheries, including the federal and state ESA, and impacts to these species would be considered significant under CEQA.

The project has been designed to avoid disturbance to riparian and wetland habitat through the use of trenchless stream crossing techniques. Both Alhambra Creek and the unnamed drainage would be crossed using auger or directional boring techniques. Potential effects to special status species associated with wetland habitats may include the temporary removal of small areas of vegetation, direct mortality from equipment, entrapment in open trenches, and harassment due to noise or vibration. Project construction activities could potentially result in accidental discharges of toxic materials, such as diesel fuel, hydraulic fluid, and bentonite or other drilling fluids into adjacent wetland habitat, thereby affecting special-status plant and animal species and natural communities. In addition, tree removal, noise, and human disturbances from construction activities could cause nest abandonment and death of young or loss of reproductive potential at active special-status bird nests located in the project area.

Although the likelihood of impacts to species or habitat exists, the extent of the effect would not likely be substantial. The 5,500-foot replacement pipeline segment is immediately adjacent to an existing railroad bridge, an industrial building, and other transportation facilities (e.g., roads, railway, and parking lots). The wildlife habitat value of the area that would be disturbed by replacement pipeline construction is not as high as the salt marshes of Martinez Shoreline Park to the north because of the presence of these facilities. However, restoration activities have increased native marsh vegetation and habitat within Alhambra Creek and special-status species may be found at the project area. 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 effects to less than significant levels for species that might be affected at this site.

Impact 2.D-1: Construction of the 5,500-foot replacement pipeline segment in Martinez could significantly impact the following special-status plant and animal species: soft bird's beak, Mason's lilaeopsis, Suisun marsh aster, Delta tule pea, Delta mudwort, California seablite, Point Reyes bird's beak, rose-mallow, hairless popcorn-flower, saline clover, Delta smelt, Chinook salmon, steelhead, Sacramento splittail, green sturgeon, river lamprey, Pacific lamprey, longfin smelt, California red-legged frog, northwestern pond turtle, California clapper rail, California black rail, tricolored blackbird, short-eared owl, black tern, northern harrier, saltmarsh common yellowthroat, Suisun song sparrow, long-billed curlew, and salt marsh harvest mouse. Several species could be impacted by habitat alteration or direct displacement during construction. This would be a less than significant impact with implementation of Mitigation Measure 2.D-1.

Mitigation Measure 2.D-1: Prior to commencing construction of the 5,500-foot replacement pipeline segment, SPBPC shall perform a pre-construction survey at the project site to determine whether these Special-Status Species are present. If Special-Status Species are present and a potential impact is

unavoidable, SPBPC shall develop a Special-Status Species Protection Plan to prevent significant impacts to Special-Status Species and provide the Plan to CPUC staff as well as the applicable regulatory agencies (i.e., USFWS, CDFG, Corps, RWQCB, etc.) for review and approval. The CPUC mitigation monitor shall monitor compliance with the Plan. Additional measures determined through applicable agency consultations shall be incorporated into the Plan. Elements of this Plan shall include but not be limited to the following measures:

General

- Environmental training covering protection of biological resources in the 5,500-foot replacement pipeline segment area shall be given to appropriate project personnel prior to construction. The training program shall include materials describing sensitive resources, resource avoidance, permit conditions, and possible fines for violations of state or federal environmental laws. The program shall also cover the environmental permits and mitigation measures to avoid significant impacts to special-status species.
- SPBPC and/or its contractor(s) shall minimize disturbance to sensitive habitat (i.e. brackish marsh and salt marsh) at Alhambra Creek, the unnamed drainage, and associated wetlands through trenchless construction techniques or other techniques approved by the applicable governmental agencies. Erosion control measures and Best Management Practices (i.e., fencing, exclusion zones, Mitigation Measure 2.H.1 and Best Management Practices in the Storm Water Pollution Prevention Plan (SWPPP)) shall be implemented adjacent to Alhambra Creek, the unnamed drainage, and any associated wetlands to prevent sediment from entering the drainages. If vegetation disturbance occurs, SPBPC and/or its contractor(s) shall stabilize exposed slopes and stream banks immediately upon completion of installation activities. Beds and banks shall be restored in a manner that encourages vegetation to reestablish to its pre-project condition and reduces the effects of erosion on the drainage system.

Botanical Resources

- SPBPC shall install flagging and/or fencing to protect wetland and riparian habitat within the project area to exclude construction equipment and prevent impacts to the area through avoidance to the extent feasible.
- If preconstruction surveys to map the project replacement pipeline easement determine that wetland vegetation cannot be avoided and will be disturbed or removed during construction, a qualified botanist shall conduct pre-construction species-specific surveys for special-status plant species (soft bird's beak, Mason's lilaeopsis, Suisun marsh aster, Delta tule

pea, Delta mudwort, California seablite, Point Reyes bird's beak, rose-mallow, hairless popcorn-flower, and saline clover) in all areas that may provide suitable habitat during the period of identification for each species. Results of the survey shall be included in the project administrative record. If special-status plant species are found, then these species shall be avoided. In the event that it is infeasible to avoid, then SPBPC shall compensate for the loss of special-status plant species and their habitat at a 2:1 ratio (or potentially larger ratio as agreed to by the permitting agencies) within the project vicinity by creating, restoring, or enhancing special-status species habitat or by contributing in-lieu funds to an existing or new restoration project preserved in perpetuity. Compensation for both individual special-status plants and acreage of habitat lost is likely to be required. If the proposed project would result in potential impacts to listed plant species, consultation with USFWS and CDFG shall be initiated to determine whether further action is required.

- If wetland or riparian habitat will be removed during construction, a revegetation plan shall be developed and implemented.³ The plan shall require replacement of wetland and/or riparian habitat at a ratio of at least 2:1 and implementation of a 5-year monitoring program with the following success criteria: establishing an 80 percent survival rate of restoration plantings native to local watershed; absence of invasive plant species; absence of erosion features; and a functioning and self-sustainable wetland system. If a portion of the restoration area fails to meet the specified criteria, then SPBPC will implement additional measures as approved by oversight agencies, including but not necessarily limited to re-planting, monitoring, and maintenance until the restoration goals and performance criteria are achieved. Following site surveys during the monitoring period, corrective actions will be taken, if necessary, to correct deficiencies in the establishment of the revegetated area. An analysis of the cause of site failures will be made and remedial actions taken to remedy the problem if performance criteria or final criteria are not met.
- Previously vegetated areas that would be cleared during construction activities shall be revegetated with appropriate species, as required.

Wildlife and Fisheries Resources

- Construction activities shall avoid aquatic habitat for special-status fish and northwestern pond turtle by utilizing trenchless construction techniques to cross Alhambra Creek and the unnamed drainage. Mitigation Measure 2.H.1 and Best Management Practices in the Storm Water Pollution Prevention Plan (SWPPP), including bentonite spill containment and cleanup measures or other techniques approved by the

³ Potential impacts to wetlands considered jurisdictional by the Corps under Section 401 of the Clean Water Act are discussed in section (b) below. This section discusses impacts to wetlands that provide habitat for special-status species.

applicable governmental agencies, shall be implemented to prevent impacts to aquatic habitat.

- **If construction activities occur within wetland or riparian habitat with the potential to support California clapper rail, California black rail, and/or California red-legged frog, prior to construction, surveys shall be performed by a qualified biologist for these species to determine their presence or absence within the project area. California clapper rail and California black rail surveys should be conducted between January 15 and March 31. California red-legged frog surveys should be conducted between May 1 and November 1. If the project will impact wetland or riparian habitat for any of these listed species (California clapper rail, California black rail, California red-legged frog, and/or salt marsh harvest mouse) formal consultation and preparation of a Biological Assessment and Biological Opinion (required by the federal Endangered Species Act) shall occur. Specific measures to protect these species during construction shall be determined in consultation with USFWS, CDFG, and NOAA Fisheries and may include exclusion fencing, seasonal construction windows, biological monitoring, and compensatory mitigation and restoration for habitat disturbance or loss. The proposed project will comply will all measures included in applicable USFWS/NOAA Fisheries Biological Opinions for the project.**
- **Construction shall be timed to the extent possible to avoid the nesting period for raptors and other special-status birds (February 1 through August 31).**
- **If construction is scheduled to occur during the nesting season of raptors or other special-status birds, no more than two weeks before construction preconstruction surveys shall be conducted to identify active nests in the project area. No-disturbance buffer zones shall be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged.**
- **Construction within 1/2 mile of an active raptor nest shall not begin until the young have fledged from the nest. Buffer zone size may be adjusted in coordination with CDFG based on site-specific conditions.**

Significance After Mitigation: Less than significant.

PIPELINE OPERATION

Operation of the Pipeline would have less than significant impacts on special-status species. Although the Pipeline passes through substantial areas of federally-protected wetlands with potential habitat for special-status species such as California clapper rail, California black rail and salt marsh harvest mouse, its operation would not alter special-status species in those areas because it would not require removal, filling, or hydrological

interruption, or other actions affecting those wetlands and the plant and wildlife species within them. Access to the Pipeline for routine maintenance would occur on railway easement and other established disturbed corridors and would not disturb natural habitat.

An accidental pipeline spill would have the potential to adversely impact special-status species through hazardous materials contamination of Alhambra Creek and other wetland and water resources in the project area. This contamination could result in wetland habitat loss and degradation, loss of wildlife breeding success, and direct mortality of special-status plant and wildlife species. However, the existing Pipeline has been subject to frequent maintenance and inspection. This includes using a smart pig every five years to detect and measure pipe-wall deterioration, and to hydro-statically test the line for possible leaks. According to PG&E, the most recent test using a smart pig, as well as the latest hydrostatic test, indicated that the Pipeline is sound and can be re-activated without the need for repair or modification. Although the evidence indicates that the Pipeline is safe to operate, in order to convert the Pipeline to active status, SPBPC will have to conduct additional smart pig and hydrostatic testing prior to operation. These results would be submitted to the State Fire Marshal for its review in considering a request for “active status.”

To minimize any impacts of a possible pipeline leak, a leak detection system was incorporated into the system design. A possible leak would be detected through a loss in pressure, and remotely controlled isolation valves would respond rapidly to minimize oil loss. The isolation valves would be inspected every six months to insure proper function. Existing shut-off valves nearest to Martinez are at Crockett, approximately 0.5 miles east of the sugar plant along the railway, and at the Shore Terminal station, approximately one mile east of the Shell Refinery. In addition, **Mitigation Measure 2.G-3** requires the installation of block valves along the Pipeline at each end of the Martinez Shoreline Park to protect Alhambra Creek and its associated wetlands from petroleum spill impacts. Therefore, there is an extremely low probability for a spill to occur that could cause significant effects on special-status species, so, this potential impact is considered less than significant.

b)

5,500-FOOT REPLACEMENT PIPELINE SEGMENT

Sensitive natural communities in the replacement pipeline project area include wetland and riparian communities associated with Alhambra Creek and its wetlands and the unnamed drainage. Pipeline construction would avoid disturbance to these habitats by crossing these drainages using trenchless techniques and locating bore entry/exit pits outside of sensitive habitat. However, there is a potential that construction activities would disturb wetland habitat along Alhambra Creek within the revegetation area during construction adjacent to the drainage (see Impact 2.D-2 below).

PIPELINE OPERATION

Operation of the Pipeline would have less than significant impacts on wetlands and other sensitive natural communities. Although the Pipeline passes through substantial areas of federally-protected wetlands with potential habitat for special-status species, its operation would not alter sensitive natural communities in these areas because it would not require removal, filling, or hydrological interruption, or other actions affecting those wetlands and the plant and wildlife species within them. Access to the Pipeline for routine maintenance would occur on railway easement and other established disturbed corridors and would not disturb natural habitat.

An accidental pipeline spill would have the potential to adversely impact wetlands through hazardous materials contamination of Alhambra Creek and other wetland and water resources in the project area. This contamination could result in wetland habitat loss and degradation. As discussed in section (a) above, the existing pipeline has been subject to frequent maintenance and inspection and would be tested further prior to operation with the results sent to the State Fire Marshal for approval. In addition, **Mitigation Measure 2.G-3** requires the installation of block valves along the Pipeline at each end of the Martinez Shoreline Park to protect Alhambra Creek and its associated wetlands from petroleum spill impacts. Therefore, there is a low probability for a spill to occur that could cause significant effects on wetlands, so, this potential impact is considered less than significant.

c)

5,500-FOOT REPLACEMENT PIPELINE SEGMENT

Project design by boring would avoid the channels and instream wetlands of Alhambra Creek and the unnamed drainage. However, potentially jurisdictional wetland habitat adjacent to the east side of Alhambra Creek within the revegetation area may be located within the construction corridor and may be impacted during construction. Direct impacts to these potential jurisdictional wetlands are considered short-term and minimal because the disturbances are relatively short in duration and would not substantially alter wetland hydrologic functions. In addition, disturbance to the unnamed drainage could be minimized by constructing the crossing during the dry season. Natural landscape contours would be restored to pre-project conditions. Additionally, as discussed above, SPBPC would implement measures during replacement pipeline installation to minimize disturbance of jurisdictional wetlands (i.e., fencing, exclusion zones, Mitigation Measure 2.H.1 and Best Management Practices in the Storm Water Pollution Prevention Plan (SWPPP)).

Impact 2.D-2: Construction activities associated with the 5,500-foot replacement pipeline segment in Martinez could contribute to a short-term disturbance of waters

of the United States, including wetlands. This would be a less than significant impact with implementation of Mitigation Measures 2.D-2a through 2.D-2c.

Mitigation Measure 2.D-2a: SPBPC and/or its contractor(s) shall avoid disturbance to or fill of potential jurisdictional wetlands in the project area to the extent feasible as determined by CPUC staff by using trenchless construction techniques for the crossings of Alhambra Creek and the unnamed drainage or other techniques approved by the applicable governmental agencies. The CPUC mitigation monitor shall monitor compliance with such measures during construction.

Mitigation Measure 2.D-2b: SPBPC and/or its contractor(s) shall implement Mitigation Measure 2.H-1 and Best Management Practices in the Storm Water Pollution Prevention Plan (SWPPP), to prevent sedimentation and erosion within jurisdictional wetlands and/or Waters of the U.S.

Mitigation Measure 2.D-2c: If it is infeasible to avoid filling and excavating potentially jurisdictional wetlands, then SPBPC shall conduct a formal wetland delineation and have it verified by the U.S. Army Corps of Engineers (Corps) and confirmed by Regional Water Quality Control Board (RWQCB) and California Department of Fish and Game (CDFG). If the Corps and/or CDFG determine that the potentially affected water-associated features are jurisdictional, then SPBPC shall obtain appropriate wetland permits and implement all conditions contained in the Section 404 Clean Water Act permit from the Corps, Section 1601 Streambed Alteration Agreement from CDFG, and/or Section 401 water quality certification from the RWQCB (i.e., compensation for loss of wetlands, dry season construction, etc.). SPBPC shall compensate for the loss of waters of U.S. at a minimum 3:1 ratio (or potentially larger ratio as agreed to by the permitting agencies) within the project area through implementation of the wetland revegetation and monitoring plan as described in Mitigation Measure 2.D-1 above. Copies of wetland permits shall be submitted to the CPUC as evidence of compliance with these regulations.

Significance After Mitigation: Less than significant.

PIPELINE OPERATION

Operation of the Pipeline would have less than significant impacts on federally-protected wetlands. Although the Pipeline passes through substantial areas of federally-protected wetlands, its operation would not alter jurisdictional wetlands in these areas because it would not require removal, filling, or hydrological interruption, or other actions affecting those wetlands and the plant and wildlife species within them. Access to the Pipeline for routine maintenance would occur on railway easement and other established disturbed corridors and would not disturb natural habitat.

An accidental pipeline spill would have the potential to adversely impact federally-protected wetlands through hazardous materials contamination of Alhambra Creek and other wetland and water resources in the project area. This contamination could result in wetland habitat loss and degradation. As discussed in section (a) above, the existing pipeline has been subject to frequent maintenance and inspection and would be tested further prior to operation with the results sent to the State Fire Marshal for approval. In addition, Mitigation Measure 2.G-3 requires the installation of shut-off valves along the Pipeline at each end of the Martinez Shoreline Park to protect Alhambra Creek and its associated wetlands from petroleum spill impacts. Therefore, there is a low probability for a spill to occur that could cause significant effects on federally-protected wetlands, so, this potential impact is considered less than significant.

d)

5,500-FOOT REPLACEMENT PIPELINE SEGMENT

Construction activities associated with the 5,500-foot replacement pipeline segment in Martinez would result in a less than significant impact to common resident and migratory fish and wildlife species and their habitats. The construction of this new pipeline segment would occur within upland habitat used for migration and nursery of native resident and migratory species noted above. Although the Pipeline lies adjacent to valuable migratory and nursery habitat associated with downstream reaches of Alhambra Creek, it is unlikely that any wildlife species makes substantial direct use of the upland habitat affected by the project due to its low 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. Potential impacts to vegetation adjacent to Alhambra Creek would be temporary. Installation of the replacement pipeline segment would not affect passage of upland wildlife because of the low quality nursery habitat within the pipeline corridor and the adjacent roadways, railroad tracks, and industrial development, to which wildlife would not require access. Thus, the 5,500-foot replacement pipeline segment in Martinez would result in a less than significant impact to common wildlife species.

PIPELINE OPERATION

Operation of the Pipeline would have less than significant impacts on resident and migratory fish and wildlife species and their habitats. Although the Pipeline passes through and adjacent to substantial areas of federally-protected wetlands with potential fish and wildlife habitat, its operation would not alter habitat in these areas because it would not require removal, filling, or hydrological interruption, or other actions affecting those habitats and the plant and wildlife species within them. Access to the Pipeline for

routine maintenance would occur on railway easement and other established disturbed corridors and would not disturb natural habitat.

An accidental pipeline spill would have the potential to adversely impact common fish and wildlife species through hazardous materials contamination of Alhambra Creek and other wetland and water resources in the project area. This contamination could result in wetland habitat loss and degradation, loss of wildlife breeding success and direct mortality of plant and wildlife species. As discussed in section (a) above, the existing pipeline has been subject to frequent maintenance and inspection and would be tested further prior to operation with the results sent to the State Fire Marshal for approval. In addition, **Mitigation Measure 2.G-3** requires the installation of block valves along the Pipeline at each end of the Martinez Shoreline Park to protect Alhambra Creek and its associated wetlands from petroleum spill impacts. Therefore, there is a low probability for a spill to occur that could cause significant effects on native fish and wildlife species, so, this potential impact is considered less than significant.

e)

5,500-FOOT REPLACEMENT PIPELINE SEGMENT

Installation of the new 5,500-foot replacement pipeline segment would require some work adjacent to, and beneath, Alhambra Creek. The proposed 5,500-foot alignment is not within any area subject to the jurisdiction of the Contra Costa County tree protection and preservation ordinance. This work would potentially conflict with EBRPD's goal of restoration and enhancement of Alhambra Creek and its associated tidal wetlands. The proposed project would not conflict with the remaining goals of the marsh restoration project because the Pipeline would be located underground. Implementation of mitigation measures would reduce this potential temporary impact to a less than significant level.

Impact 2.D-3: Construction activities associated with the 5,500-foot replacement pipeline segment in Martinez could temporarily conflict with East Bay Regional Park District marsh restoration goals at the potential construction site, and adjacent marshlands within the Martinez Shoreline Park. This would be a less than significant impact with implementation of Mitigation Measures 2.D-3a and 2.D-3b.

Mitigation Measure 2.D-3a: Prior to commencing construction activities, SPBPC shall contact the East Bay Regional Park District (EBRPD), the sponsor of marsh restoration activities at the Martinez Shoreline Park, to reach agreement on how to coordinate pipeline installation plans with marsh restoration goals. SPBPC shall implement a trenchless crossing of Alhambra Creek and the unnamed drainage. Additional measures to avoid conflicts, such as timing of work, agreements on revegetation or replacement of habitat, shall be included in this agreement. The agreement between SPBPC and the

EBRPD shall be formalized in writing and submitted to CPUC staff for review and approval prior to construction.

Mitigation Measure 2.D-3b: Prior to commencing construction activities, SPBPC shall apply for and obtain all necessary encroachment permits (i.e. EBRPD, BCDC) required for pipeline replacement in Martinez and comply with the provisions of these permits. Copies of these permits shall be submitted to CPUC as evidence of compliance.

Significance After Mitigation: Less than significant.

PIPELINE OPERATION

Operation of the Pipeline would have less than significant impacts on marsh habitat restored by East Bay Regional Park District and adjacent marshlands within the Martinez Shoreline Park wetlands. Although the Pipeline passes through substantial areas of marsh habitat, its operation would not alter such habitat in these areas because it would not require removal, filling, or hydrological interruption, or other actions affecting those habitats and the plant and wildlife species within them. Access to the Pipeline for routine maintenance would occur on railway easement and other established disturbed corridors and would not disturb natural habitat.

An accidental pipeline spill would have the potential to adversely impact marsh habitat and East Bay Regional Park District restoration goals through hazardous materials contamination of Alhambra Creek and other wetland and water resources in the project area. This contamination could result in habitat loss and degradation. As discussed in section (a) above, the existing pipeline has been subject to frequent maintenance and inspection and would be tested further prior to operation with the results sent to the State Fire Marshal for approval. In addition, **Mitigation Measure 2.G-3** requires the installation of block valves along the Pipeline at each end of the Martinez Shoreline Park to protect Alhambra Creek and its associated wetlands from petroleum spill impacts. Therefore, there is a low probability for a spill to occur that could cause significant effects on restored marsh habitat, so, this potential impact is considered less than significant.

f)

5,500-FOOT REPLACEMENT PIPELINE SEGMENT

Although there are no federal or state Habitat Conservation Plans that apply to the project area, the 5,500-foot pipeline replacement segment area is located within the EBRPD Master Plan area in which restoration activities have been undertaken in accordance with the Master Plan. Construction of the 5,500-foot replacement pipeline segment would

occur adjacent to, and within the Martinez Shoreline Park, in which marsh restoration activities have occurred within the pipeline corridor. Without coordination and adoption of measures to minimize or avoid effects to marsh restoration activities or results, construction activities associated with pipeline installation may conflict with EBRPD's plans. Of greatest concern would be timing of the project to avoid disruption of the wildlife habitat value of the restored marsh. Implementation of mitigation measures would reduce this potential impact to a less than significant level.

Impact 2.D-4: Construction activities associated with the 5,500-foot replacement pipeline segment in Martinez could conflict with the EBRPD Master Plan administered by the East Bay Regional Park District for the Martinez Shoreline Park adjacent to the proposed construction corridor.

Mitigation Measure 2.D-4: Implement Mitigation Measures 2.D-3a and 2.D-3b.

Significance After Mitigation: Less than significant.

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Stebbins, R.C., *Field Guide to Reptiles and Amphibians*, Houghton Mifflin Company, Boston, MA, 1985.

U.S. Fish and Wildlife Service (USFWS), *Federal Endangered and Threatened Species that may be affected by projects in Contra Costa County*, available online at <http://sacramento.fws.gov>, database last updated August 11, 2004, accessed October 2004.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
E. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SETTING

There is significant archaeological evidence that Contra Costa County has been inhabited for at least the last 5,000 years. At the time of European contact, the Costanoans occupied western Contra Costa County, while the Bay Miwoks resided in the eastern portion, of the county and the Northern Valley Yokuts were in the southern portions of the County. Prehistoric remains are abundant with over 600 archaeological sites countywide having been recorded with the Archaeological Inventory (PG&E, 2004). The Pipeline alignment and associated structures travel through coastlines, wetlands, and stream courses, all likely areas for archaeological sites, especially shell mounds or middens, sweat houses, cultural utensils, and hunting equipment (PG&E, 2004).

Lengthy segments of the alignment are adjacent to the bayshore environments that would have provided attractive locales for food and other resource procurement during the prehistoric period. Numerous shell mound sites initially identified by Nels Nelson (1909) occur along the alignment. 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

Currently, the only element of the proposed project that includes activity that could potentially impact cultural resources is the proposed 5,500-foot replacement pipeline segment. ESA reviewed site records and literature at the Northwest Information Center (Sonoma State University) relating to the proposed 5,500 foot replacement pipeline segment. 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.

Although sites have been recorded near the study area, no prehistoric or historic resources have been previously recorded within the footprint of the proposed alignment. Portions of the alignment were previously surveyed during the Pipeline's initial construction. For the purposes of assessing the cultural resource impacts for the pipeline replacement project, Basin Research Associates (2000) conducted a pedestrian (foot) survey of the project area using linear transects on either side of the 5,500-foot replacement pipeline segment alignment. The survey was limited because portions the proposed alignment are located on the Union Pacific Railroad (UPRR) right-of-way and ground visibility remained low due to the presence of ballast and fill gravels, as well as, the presence of several railroad tracks and associated signals and engineered fill. In areas where native soils were present or where building did not completely mask the ground surface, and locations which had not been previously surveyed, were more closely inspected during the Basin Research Associates survey.

Native American consultation for this project is an ongoing process. ESA sent Letters to the Native American Heritage Commission (NAHC) requesting a search of their Sacred Lands files. No sacred lands were identified by the NAHC within the project area. In an effort to obtain additional information regarding cultural resources in the project area, letters were sent to Native American contacts recommended by NAHC for this project area. No responses have been received as of the writing of this document.

The following are discussions of the archival results from each segment along the entire Pipeline route.

City of Richmond

Remains from the prehistoric Costanoan culture exist 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 in Point Richmond and the shipyards of Richmond are listed in the

National Register of Historic Places, the closest of which is located approximately 1/2 mile southwest of 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 the Contra Costa County General Plan lists, no sensitive prehistoric resource areas in Pinole. No prehistoric sites were reported in Pinole during original archaeological investigations for the original proposal to transfer the Pipeline (PG&E, 2000). However, the route follows the shoreline and crosses Pinole Creek, so the potential exists for discovery of subsurface prehistoric deposits during ground-disturbing activities near the shoreline and Pinole Creek.

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 may exist; 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).

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 an 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).

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).

5,500 Foot Replacement Pipeline Segment

The immediate vicinity surrounding the 5,500-foot replacement pipeline segment was examined in more detail, due to the potential for ground disturbing activities during construction of the replacement pipeline segment. 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 replacement pipeline segment, which extends approximately 300 feet north of the study area to the Martinez Regional Shoreline Park. This portion of the replacement segment 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 segment 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).

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). No archaeological sites have been previously recorded within the study area of the 5,500 foot replacement segment. 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 replacement pipeline segment (Northwest Information Center, 2000).

City of Pittsburg

The Pipeline terminates 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 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 termination 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 the initial proposal to transfer the Pipeline (PG&E, 2004). During the course of the inspection of the area at that time, the location

was described as recently disturbed by machinery and no surface evidence of archaeological materials were identified (PG&E 2004).

El Sobrante

El Sobrante is listed as sensitive for archaeological resources in the Contra Costa County General Plan with known archaeological sites. However, the existing pipeline is located approximately 2 miles from any areas that may contain known archaeological sites.

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 (PG&E, 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. According to the PG&E (2000) Proponent Environmental Assessment, 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 (PG&E, 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 (PG&E, 2004).

With respect to paleontological resources, the PG&E (2000) PEA asserts that the only paleontological deposits recorded near the Pipeline in the original investigations were also located on the shore, south of Lone Tree Point. 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. According to the PG&E (2000) PEA, one prehistoric site was investigated during the initial Pipeline installation, and is located just east of a T-shaped dock approximately one-mile west of Martinez. This area is described as highly

sensitive, with known archaeological sites. On the basis of the original recorded location for the site, no surface evidence of the site was found; however, PG&E (2000) stated that the original investigators 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-1850's 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. The 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. According to PG&E (2004), the original investigation conducted for the installation of the Pipeline did not identify cultural resources in the Bay Point segment of the Pipeline.

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 segment in Martinez. The entire replacement pipeline segment 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). For example, if it is determined that the 5,500-foot replacement pipeline segment will require a U.S. Army Corps of Engineers permit, compliance with Section 106 of the National Historic Preservation Act may be necessary.

Section 106 Review

Section 106 of the National Historic Preservation Act (NHPA), and its amendments effective June 1999, requires federal agencies, or those they fund or permit, to consider the effects of their actions on properties that are eligible for listing or are listed in the National Register of Historic Places (36 CFR Part 800). 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 (16 USC 470 et seq.). 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.

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—that is, the SHBC is applied in concert with design and historical disciplines—rather than more prescriptive housing codes, which are mostly devoted to maintaining life-safety standards. 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 SHBC requires enforcing agencies to accept any reasonable alternatives to the regular code when dealing with qualified historical buildings. 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 archaeological 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 uses 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. The East Bay Regional Park District's Ordinance 38 provides the regulatory framework 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 primary potential impacts 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 the 5,500-foot replacement pipeline segment in the city of Martinez and other ground-disturbing activities. Because the proposed change to the use of the Pipeline for transport of crude oil, black oils, and refined petroleum product would not materially change the surrounding subsurface and surface features, this is not expected to adversely affect cultural resources. In addition, the Pipeline would be maintained and safety procedures would be implemented to mitigate damage from oil spills, which could cause adverse effects to known or unknown cultural resources. 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 within the 50-foot construction easement

The original cultural resource investigation conducted for the Pipeline in 1974 concluded, “no archaeological values of significance would be affected by the proposed pipeline.” Moreover, the location of the replacement pipeline segment was investigated by Basin Research Associates (2000) and it was determined that the replacement would not adversely effect known cultural resources. 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 5,500-foot replacement segment. However, no historical archaeological sites or historic structures have been previously recorded in the project area.

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, which included a pedestrian survey, 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 a result of the development in the area, traditional foot (or pedestrian) survey methods is an unreliable method for identifying subsurface cultural resources. Under such circumstances, construction monitoring by qualified archaeological monitors may be substituted for survey, augering or test pitting, or pre-construction data recovery.

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

Impact 2.E-1: Construction of the 5,500-foot replacement pipeline segment may cause substantial adverse changes to the significance of currently unknown cultural resources. This would be a less than significant impact with implementation of Mitigation Measures 2.E-1a, 2.E-1b, and 2.E-1c.

Mitigation Measure 2.E-1a: SPBPC shall appoint an environmental monitor for this project who shall consult with a cultural resources specialist, or specialists, to monitor archaeological issues which may arise during the course of ground disturbing activities. The environmental monitor shall be appointed at least 30 days prior to the start of project-related 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. At that time, SPBPC shall also confirm in writing to CPUC staff that the environmental monitor consulted with an approved cultural resources specialist(s) and that the environmental monitor will be available at the start of the project and is prepared to implement the mitigation measures.

SPBPC shall provide CPUC staff with the name(s) and statement of qualifications of its designated cultural resources specialist(s) with whom the environmental monitor consulted at least 30 days prior to the start of construction. The CPUC staff shall review the qualifications and approve or disapprove of the environmental monitor and the designated cultural resource specialist(s). 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). The assigned cultural resource monitor shall determine the period and duration of the monitoring schedule based both on site conditions and professional judgment regarding the probability of encountering cultural resources during construction.

Mitigation Measure 2.E-1b: In the event that prehistoric, historic, or paleontological resources are encountered during construction, all work shall immediately stop within 100 feet of the resource. In the event of a paleontological find, the environmental monitor shall notify a qualified paleontologist of unanticipated discoveries in order to evaluate the find. The paleontologist shall notify the CPUC monitor and the CPUC staff to determine procedures that would be followed before construction is allowed to resume at the location of the find. In the event the find is cultural in nature, the project cultural resource specialist(s) shall follow accepted professional standards in recording any find including submittal of the standard Department of Parks and Recreation (DPR) Primary Record forms (Form DPR 523) and locational information to the California Historical Resources Information Center office (Northwestern Information Center). The environmental monitor shall also consult with a project cultural resource specialist to evaluate such resources for significance per California Register of Historical Resources eligibility criteria (Public Resources Code Section 5024.1; Title 14 CCR Section 4852). If the specialist(s) determines that the find does not meet the CEQA standards of significance, construction shall proceed. In the case of both paleontologic and cultural resources, if the specialist(s) determines that further information is needed to evaluate significance, the SPBPC and the CPUC staff shall be notified and a data recovery plan shall be prepared.

The Data Recovery Plan shall delineate a plan and timetable for evaluating the find. The Plan shall also emphasize the avoidance, if possible, of significant impacts to archaeological or paleontological resources. If avoidance or preservation is not possible, the acquisition of data from the site or salvage through excavation that produces qualitative and quantitative data sets of scientific value may be considered an effective mitigation measure for damage to or destruction of the deposit (Public Resources Code Section 21083.2 (d); Society of Vertebrate Paleontology 1991). Upon approval of this Plan by the CPUC staff, the Plan shall be implemented prior to reactivation of any project activities within 100 feet of the resources' boundary.

Mitigation Measure 2.E-1c: Prior to the commencement of construction or ground distributing activities, all construction personnel shall receive

environmental training in a manner that will inform all personnel of the possibility of encountering cultural resources.

All construction personnel involved in activities that may uncover prehistoric resources shall 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 shall also be informed of the potential to uncover paleontological resources, which could include true fossils, trace fossils, and/or breas. The level of training for construction activities shall be sufficient such that the workers will know when to call their supervisors to investigate objects that may be a cultural resource. Supervisors shall receive sufficient training to determine when a cultural resources specialist should be contacted to identify any found objects. If cultural resources are encountered during construction, the construction crew shall halt work in the area and not collect or disturb the materials until the environmental monitor, appointed under Mitigation Measure 2.E-1a, has evaluated the location and determined an appropriate mode of action.

Significance After Mitigation: Less than significant.

- 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.

As mentioned above, the area of primary concern regarding impacts to cultural resources involves construction of the 5,500-foot replacement pipeline segment. According to the records research conducted by the Northwest Information Center (File No. 00-454) for the purposes of the Basin Research Associates (2000) report, 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 Martinez City Hall. However, based on historic reconstructions of the bayshore and marsh margins, the project area was inundated during prehistoric times. Given this environmental setting, there is less probability for encountering substantial

archaeological resources in the project area. In addition, Basin Research Associates (2000) concluded that on the basis of the archival review and field survey, the proposed pipeline replacement will not cause a significant impact to archaeological resources. Nevertheless, this does not preclude the possible existence of subsurface cultural resources within the replacement pipeline segment project area.

Impact 2.E-2: Construction of the replacement pipeline may cause substantial adverse changes to the significance of currently unknown archaeological resources. This impact would be less than significant with application of Mitigation Measure 2.E-2.

Although the previously conducted surveys revealed no new cultural resources (Basin Research 2000), this does not conclusively demonstrate the nonexistence of subsurface cultural resources on the project site. Traditional foot survey methods are constrained due to variation in the natural landscape, such as railway built settings that can obscure surface evidence. If historical resources, unique archaeological resources, or traditional cultural properties do indeed exist on the project site, grading and other construction related activities could cause significant impacts to the scientific value of those resources.

Mitigation Measure 2.E-2: Implement Measures 2.E-1a, 2.E-1b, and 2.E-1c.

Significance After Mitigation: Less than significant.

- c) The 5,500-foot replacement pipeline project site contains recent artificial fill and possibly elements of unconsolidated alluvial fan and fluvial deposits (Helley and Graymer 1997). Artificial fill contains man made deposits of various materials. Alluvial fan deposits are brown or tan, medium dense to dense, gravely sand or sandy gravel that generally grades upward to sandy or silty clay. In both cases, these sediments are not likely to contain fossiliferous elements. In addition, installation of the 5,500-foot replacement pipeline segment would involve shallow excavations primarily in pre-disturbed soils within the UPRR easement and urbanized areas. Given the relatively young geomorphic characteristics of this area, the probability of encountering paleontological resources is substantially reduced. 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.

Impact 2.E-3: Construction of the replacement pipeline may damage or degrade unidentified paleontological remains. This would be a less than significant impact with implementation of Mitigation Measure 2.E-1b and 2.E-1c.

Mitigation Measure 2.E-3: Implement Measures 2.E-1b, and 2.E-1c.

Significance After Mitigation: Less than significant.

- d) **Impact 2.E-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 is considered a potentially significant impact. This would be a less than significant impact with implementation of Mitigation Measure 2.E-4.**

Mitigation Measure 2.E-4: If discovery of human remains occurs during construction, the following provisions shall be followed:

In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

- (1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:**
 - (A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and**
 - (B) If the coroner determines the remains to be Native American:**
 - 1. The coroner shall contact the Native American Heritage Commission within 24 hours.**
 - 2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.**
 - 3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, 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, or**
- (2) Where the following conditions occur, SPBPC or its 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.**
 - (A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent**

failed to make a recommendation within 24 hours after being notified by the commission.

(B) The descendant identified fails to make a recommendation; or

(C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Upon the completion of the relevant measures above, the cultural resources specialist(s) shall implement Mitigation Measure 2.E-1b.

Significance After Mitigation: Less than significant.

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Basin Research Associates, *Archaeological Resources Assessment – Pipeline Replacement Project North of the City Limits of the City of Martinez, Contra Costa County*, 2000.

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

City of Martinez, *Martinez Intermodal Station Project Draft Environmental Impact Report*, 1994.

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City of Pittsburg, *Pittsburg General Plan*, 1988.

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

Contra Costa County Planning Department, *Historic Resources Inventory, Contra Costa County*, 1989.

Halley, E.J. & R.W. Greymer. *Geology of Contra Costa County California, and Surrounding Areas*. United States Geologic Survey, Open File Report 97-98.

Treadway, Debbie, California Native American Heritage Commission, personal communication, June 21, 2001.

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

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

Pacific Gas and Electric Company, *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, 2000.

Pacific Gas and Electric Company, *Supplement to 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, May 2004.

Society of Vertebrate Paleontology. *Conformable Impact Mitigation Guidelines Committee*. The Society of Vertebrate Paleontology, Policy and Position Statements, 1991.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
F. 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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

GEOLOGIC 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 by settlement or compression

and result in 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 interfingering with or adjacent to the intertidal marshland deposits and consists of consolidated and unconsolidated coarse-grained sediments and finer-grained silts and clays. The areas of the Pipeline that are located on Bay mud intertidal deposits extend from Richmond to Hercules and from southern Port Costa to the Mirant 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 are 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.

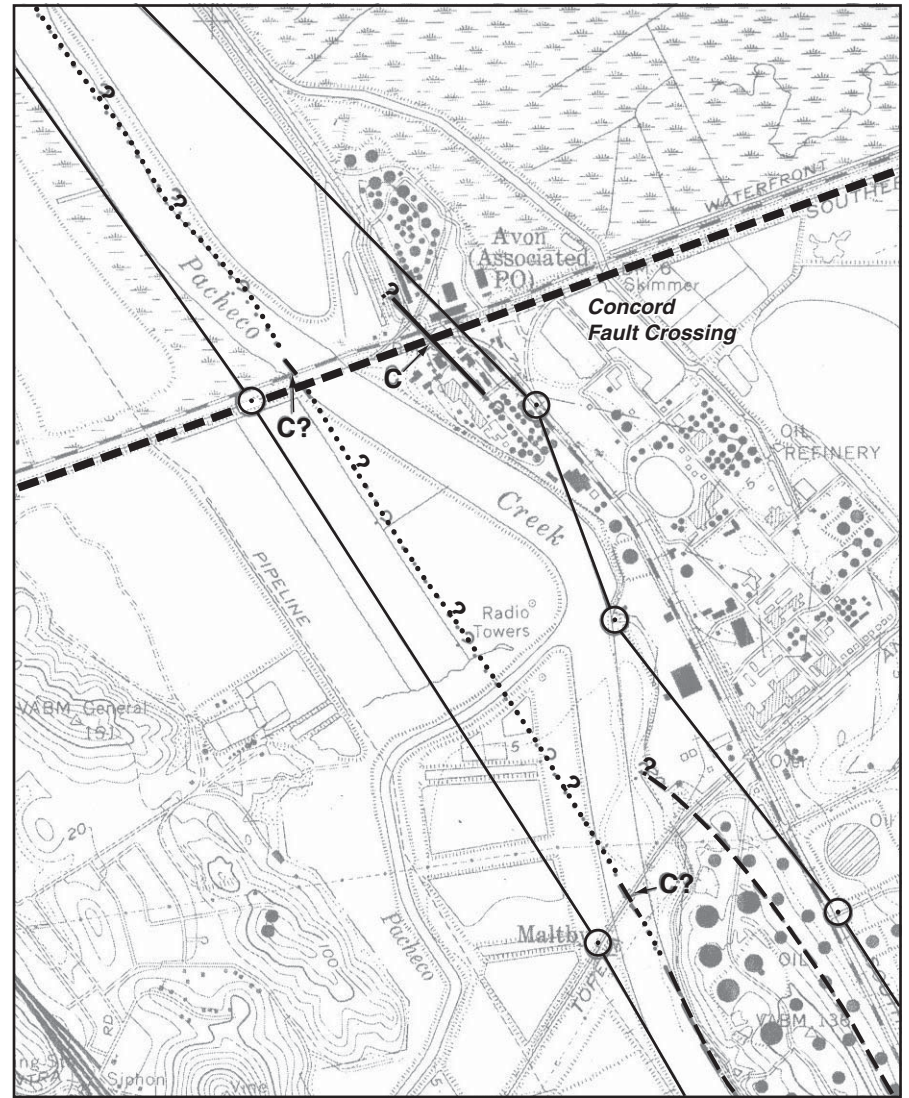
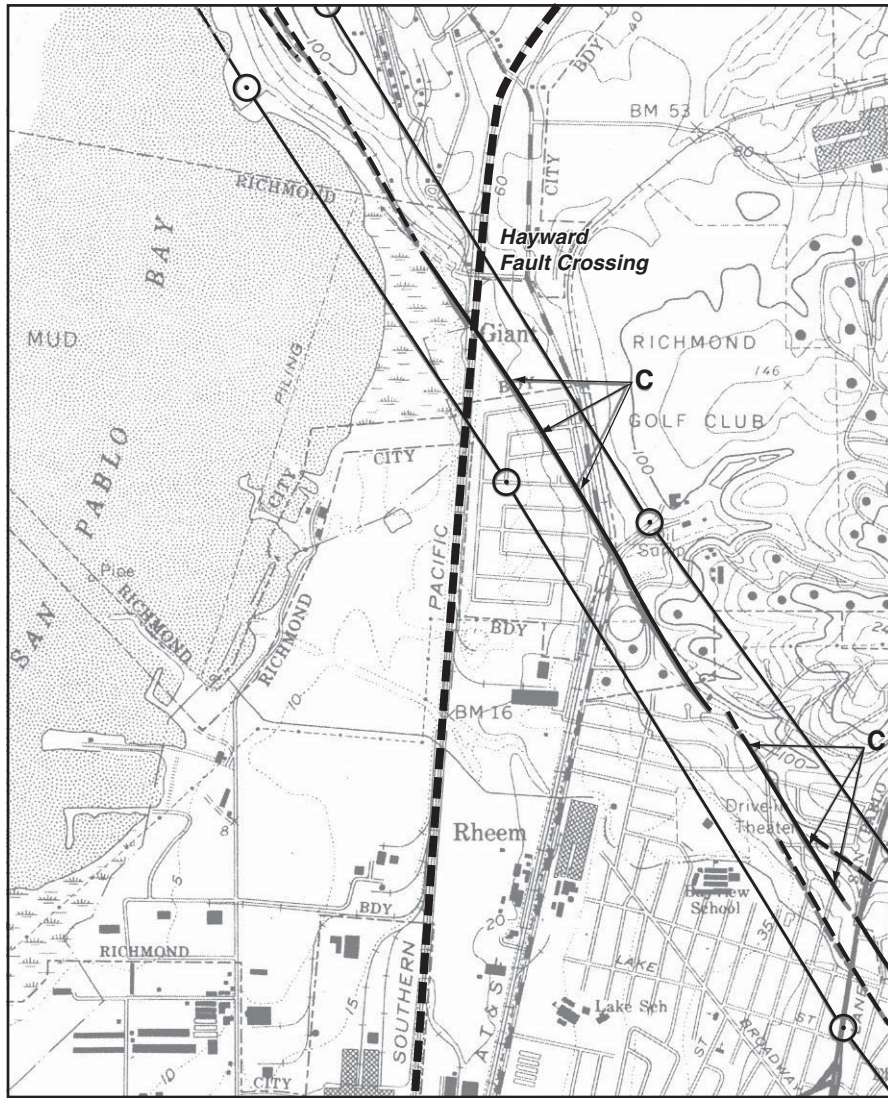
The 5,500-foot replacement pipeline segment in Hercules is located on alluvial deposits. Through Pittsburg, the Pipeline generally runs along the border between the intertidal marshland and alluvial materials.

SEISMICITY

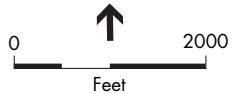
The Pipeline is located in the San Francisco Bay Area, a region containing both active and potentially active faults and intense seismic activity. The 1997 Uniform Building Code (UBC) locates the entire Bay Area within Seismic Risk Zone 4. Areas within Zone 4 are expected to experience maximum magnitudes 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, 2003).

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 2.F-1**). 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 within the next 30 years (USGS, 2003).



PG&E Richmond to Pittsburg Pipeline



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 Richmond-to-Pittsburg Pipeline Divestiture (A.00-05-035 and A.00-12-008) / 204015

Figure 2.F-1
 Alquist-Priolo Fault Rupture Zones

The Pipeline is also located near other active faults, such as the Clayton segment of the Greenville fault located 5 miles south, the West Napa fault located 7 miles north, and the San Andreas fault located 20 miles west. In addition, the existing Pipeline and the proposed 5,500-foot replacement pipeline segment cross or are located immediately adjacent to numerous potentially active faults such as the Franklin, Pinole, and Southampton faults.

GEOLOGIC HAZARDS

Landslides

A landslide occurs when a mass of rock, soil, and debris is dislodged and displaced down-slope. 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 to erosion. Excessive soil erosion can eventually lead to damage of building foundations, roadways, and dam embankments. Erosion is most frequently encountered 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. Lateral movement of a fault trace that is not associated with an earthquake is known as tectonic creep (also referred to as

slip). Under certain conditions, tectonic creep can result in measurable displacement across a fault and eventual damage to structural features placed across the fault trace.

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, interstitial sand lenses within the 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, and degree of saturation.

REGULATORY SETTING

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. The 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 Geological Survey has not yet completed a preliminary Seismic Hazards Map for the project area.

CALIFORNIA BUILDING CODE

The California Building Code is 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 are located within an Alquist-Priolo Earthquake Fault Zone, as defined by the California Geological Survey (CGS) (see **Figure 2.F-1**). The Pipeline crosses the active Hayward and Concord-Green Valley 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 Hazard Zones under the Alquist-Priolo Act. Although these faults are susceptible to displacement, 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-Green Valley fault would be approximately 2 feet with negligible vertical component of movement. Where the Pipeline crosses the Hayward and Concord-Green Valley 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 (Bette, 1974).

The Pipeline crosses the Hayward and Concord-Green Valley 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.

The maximum estimated tectonic creep across the northern Hayward fault is 9 (+/- 1) millimeters (0.354 inches) per year (USGS and 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-Green Valley fault is estimated to creep at 6 millimeters per year. The Concord-Green Valley fault could result in 4 inches of lateral offset in 10 years with 1 inch in 10 years of elongation. Design features of the Pipeline that compensate for displacement, axial elongation, or compression caused by tectonic creep. These features include U-bends and specially-designed concrete conduit encasement of the Pipeline to compensate for seismically-induced displacement. In addition, the Pipeline employs remote control isolation valves on either side of the Concord-Green Valley fault crossing, and immediately northwest of the Hayward fault crossing to stop the flow of product through the Pipeline in the event that an earthquake causes the Pipeline to displace and rupture. 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. HLA recommended that tectonic creep rate and deformation at the Hayward and Concord-Green Valley fault crossings be monitored regularly as creep rates could increase or decrease significantly in the future. PG&E found no documents that provide a record of past tectonic creep monitoring. Although 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 1975, this fault segment could have undergone up to 9 inches of displacement. As of 1974, street

curbs built across the Concord-Green Valley fault in the City of Concord were observed to have moved 15 centimeters (6 inches) since 1949 (SFBCDC, 1974).

Impact 2.F-1: The Pipeline may not withstand future offset generated by tectonic movement or sudden earthquake displacement because the amount of pipeline distortion from historical creep is unknown. This would be a less than significant impact with implementation of Mitigation Measure 2.F-1.

Mitigation Measure 2.F-1: Prior to operation of the Pipeline, 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. The evaluation shall also include an inspection of the Pipeline. The evaluation shall determine the degree to which the Pipeline has been affected by tectonic creep along the Hayward and Concord fault crossings since its installation in the 1970s. This evaluation shall be submitted to the CPUC staff for review of the analysis and recommend actions. Should this evaluation determine that the Pipeline is unable to withstand a major seismic event on the Hayward or Concord fault, or to withstand the further tectonic creep expected along the two faults during the expected operating lifetime of the Pipeline, SPBPC shall undertake necessary repairs or modifications of the Pipeline as recommended by the consulting engineers, and submit documentation to the CPUC staff showing these necessary repairs or modifications, i.e., strengthening sections of the Pipeline or other design modifications to the Pipeline have been completed. In accordance with federal regulations (Title 49, Section 195), the Pipeline shall be inspected on a regular basis, and immediately following a seismic event or any other event that may effect the safety of the Pipeline. The findings of these inspections shall be reported to the State Fire Marshal, which in California assumes responsibility for enforcement of the above regulations for the U.S. Department of Transportation.

Significance After Mitigation: Less than significant.

- a-ii) In the event of an earthquake on any of the aforementioned faults, the Pipeline 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, during similar seismic events, the pipeline segment that crosses Hastings Slough is likely to experience greater peak ground acceleration than the segment supported by bedrock. 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 original seismic and geotechnical evaluation, resulting original 1975 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 less than significant. Furthermore, **Mitigation Measure 2.F-1** ensures that the existing pipeline will be evaluated for the effects of tectonic creek and modified or repaired as necessary to keep potential seismic impact less than significant.

The 5,500-foot replacement pipeline segment would be located in an area subject to strong seismic ground shaking. Similar to the existing pipeline segments and facilities described above, the 5,500-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 could 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 5,500-foot replacement segment is unavoidable but appropriate site evaluation,

engineering analysis, and structural design, as addressed in **Mitigation Measure 2.F-2**, could reduce the potential for damage caused by earthquakes.

Impact 2.F-2: The 5,500-foot replacement pipeline segment could be subjected to strong ground shaking during a seismic event, potentially resulting in pipeline rupture or long-term service interruption. This would be a less than significant impact with implementation of Mitigation Measure 2.F-2.

Mitigation Measure 2.F-2: Prior to commencing construction activities for the 5,500-foot replacement pipeline segment, SPBPC shall prepare a geotechnical analysis for the 5,500-foot replacement pipeline route in Martinez. The geotechnical analysis shall include 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 shall 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 5,500-foot replacement pipeline segment. Where applicable, structural and seismic design parameters shall conform to the current Uniform Building Code (UBC) and the API standards. The geotechnical evaluation shall be submitted to the CPUC staff for review of the analysis and recommendations such as modifications to the proposed design to strengthen sections of the Pipeline. Based on the geotechnical analysis, recommendations of the geotechnical engineer on issues such as, seismic and corrosion concerns under two water crossings, shall be incorporated into the design and construction of the 5,500-foot replacement pipeline segment. In addition to complying with all applicable local, state, and federal policies, codes, and regulations, SPBPC shall submit documentation to the CPUC staff showing these recommendations were implemented.

Significance After Mitigation: Less than significant.

- a-iii) 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 it substantial damage, 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.

Impact 2.F-3: The 5,500-foot pipeline replacement pipeline segment in Martinez would be subject to liquefaction hazards. This would be a less than significant impact with implementation of Mitigation Measure 2.F-3.

Mitigation Measure 2.F-3: Implement Mitigation Measure 2.F-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 in 1975 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 1975. 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 for the original Pipeline alignment.
- b) Operation of the Pipeline would not result in substantial erosion or the loss of topsoil. Construction activities associated with installation of the replacement pipeline segment 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 such as, erosion fences and hay wattles, typically implemented as part of construction would ensure that potential soil erosion remains at a less than significant level.
- c) See a-iii and a-iv, above.
- d) 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 5,500-foot replacement pipeline segment would reduce potential impacts associated with expansive soils.

Impact 2.F-4: Portions of the 5,500-foot replacement pipeline segment may be located in areas with expansive soils. This would be a less than significant impact with implementation of Mitigation Measure 2.F-4.

Mitigation Measure 2.F-4: Implement Mitigation Measure 2.F-2.

Significance After Mitigation: Less than significant.

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

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2. ENVIRONMENTAL CHECKLIST & EXPANDED EXPLANATION

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San Francisco Bay Conservation and Development Commission, *Engineering Criteria Review Board minutes, Pacific Gas and Electric Company Fuel Oil Pipeline, Richmond to Antioch*, BCDC Application no. 2-74, February 26, 1974.

U.S. Geological Society (USGS) Working Group on California Earthquake Probabilities (WG02), *Is a Powerful Quake Likely to Strike in the Next Thirty Years?*, USGS Fact Sheet 039-03, 2003.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
G. 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

DEFINITIONS

For purposes of this analysis, materials and waste may be considered hazardous if they are poisonous (toxic), can be ignited by an open flame, corrode other materials, or react violently, explode or generate vapors when mixed with water (reactivity). The term “hazardous material” is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the

environment.¹ Hazardous materials have been and are commonly used in commercial, agricultural, and industrial applications as well as in residential areas to a limited extent.

A hazardous waste is any hazardous material that is discarded, abandoned, or 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 that have 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.

PIPELINE HISTORY AND EXISTING CONDITIONS

Pipeline Design and Fuel Transport

The Pipeline was originally designed to deliver fuel oil at a pumping rate between 1,200 to 3,000 gallons per minute (gpm). Fuel oil is a viscous petroleum product that is used to generate steam in commercial power plants as well as to heat residential buildings. To efficiently transport fuel oil, the viscosity of the fuel oil is lowered by heating it in a process heater to temperatures that range from 150 to 200 degrees Fahrenheit prior to pumping.

Regular transportation of fuel oil through the Pipeline ceased in 1982.² The Pipeline was then operated on an as needed basis; the last shipment of fuel oil occurred in 1991 when quantities of cutter stock were occasionally moved through the Pipeline to verify its integrity. Then, in 1998, a 4,000-foot segment of the Pipeline in Martinez was capped, filled, and isolated to allow for installation of two additional railroad tracks and relocation of the Martinez Intermodal Rail Station (PG&E, 2004).

Pipeline Maintenance

Since a portion of the Pipeline was capped, filled, and isolated in 1998, PG&E has continued to maintain the remaining 35 miles of Pipeline. Cleaning plugs, commonly called “pigs,” were run through the Pipeline in 1998 and 1999 to remove residual oil. To minimize pipeline corrosion, portions of the Pipeline that are above the water table were then filled with an inert gas³ and portions of the Pipeline that are below the water table were filled with water treated with corrosion inhibitors.⁴ The Pipeline is also equipped with cathodic protection devices that protect against galvanic rust and corrosion. To ensure the cathodic protection devices remain effective,

¹ State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

² Fuel oil and cutter stock is still stored in aboveground storage tanks at the Hercules Pump Station.

³ Mostly nitrogen and air.

⁴ When the Pipeline is returned to service the release of the inert gas to the atmosphere will not cause any impacts and SPBPC will be required to address disposal of the treated water per existing discharge permits.

readings are taken weekly. Pipeline control and communications equipment as well as the entire length of the Pipeline are checked bimonthly.

In addition to routine maintenance, the Pipeline is periodically hydrostatically tested and checked with a smart pig device. A smart pig measures the thickness of the pipe wall and can detect deterioration of the strength of the pipe wall. The Pipeline was most recently tested with a smart pig in 1995. Based on maintenance procedures and the results of the most recent smart pig test, the physical integrity of the Pipeline is judged to be sound.

Leak Detection

The Pipeline also incorporates a leak detection system. Leak detection sensors, located along the Pipeline, measure drops in pressure. When the leak detection sensors detect reduced pressure, and thus, the location of a potential pipeline leak, this information is sent to the control room. Under the proposed project, SPBPC would operate the Pipeline and if a leak is detected by the leak detection sensors, a signal would be sent to SPBPC's control room.⁵ Pipeline leaks can be minimized by closing remote control isolation valves which are located no more than 10 miles apart along the length of the Pipeline. These valves are currently inspected once every six months, as required by the California Health and Safety Code, to insure proper function.

Other Pipelines in the PG&E Pipeline Corridor

Within the corridor traversed by the Pipeline, there are several other petroleum product pipelines. These pipelines are parallel and in close proximity to the Pipeline for short distances and occasionally cross the Pipeline route. Several Kinder-Morgan petroleum product pipelines are parallel to the Pipeline segment between Richmond and Martinez. The Pipeline is also crossed by several Chevron petroleum and natural gas lines in northern Richmond. In the vicinity of the Pump Station, the Pipeline is the only one in close proximity to the Pump Station property, although several Chevron pipelines pass less than one-mile south of the Pump Station. Several natural gas lines owned by Shell's affiliates and Tesoro parallel the Pipeline between Martinez and Bay Point. Just west of Pittsburg, several Chevron, Shell-affiliate, and Kinder-Morgan petroleum liquid and/or natural gas lines parallel the Pipeline route. Because these other pipelines are within close proximity to the Pipeline, there is the potential for cumulative impacts to occur during future operation of the Pipeline. These potential cumulative impacts are discussed in Section 2.Q, *Mandatory Findings of Significance*.

PIPELINE REPLACEMENT

As described above, in 1998, PG&E capped, filled, and isolated a 4,000-foot segment of the pipeline in Martinez to allow for installation of two additional railroad tracks and relocation of the Martinez Intermodal Rail Station. Because this segment was isolated, the entire length of the Pipeline cannot currently be used to transport product, although product movements could still be achieved between points on either side of the isolated pipeline segment in Martinez. PG&E has

⁵ Currently, all of Shell's pipelines are operated from a control center in Houston, Texas.

obtained a 20-foot permanent easement from the City of Martinez and East Bay Regional Park District to allow for the installation of a 5,500-foot replacement pipeline segment. According to information supplied by SPBPC, the 5,500-foot replacement pipeline segment 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, and material grade X-46). To minimize potential disturbance by the general public, the replacement pipeline segment 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 District for construction activities.

The proposed route for the 5,500-foot replacement pipeline segment in Martinez has not yet been assessed for the potential to encounter hazardous materials during construction, although a portion of the replacement segment would be located near the new Martinez Intermodal Station, which was previously assessed prior to its construction in the late 1990s. The *Martinez Intermodal Station Project Environmental Impact Report* (City of Martinez, 1994) identified several contaminated areas within the vicinity of the Martinez Intermodal Station. These included the Union Pacific Railroad Corporation Yard, which was 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 Union Pacific Railroad tracks and are not directly adjacent to the 5,500-foot replacement pipeline segment (PG&E, 2004).

SCHOOLS

Schools near the existing Pipeline were built either prior to construction of the Pipeline and Hercules Pump Station or while the Pipeline and Pump Station were in operation. There are no schools within 1/4 mile of the proposed route for the 5,500-foot replacement pipeline segment in Martinez. However, there are eight schools within 1/4 mile of other portions of the Pipeline. The impacts of the Pipeline on the schools are described below in the *Hazards and Hazardous Materials Impacts Discussion*.

REGULATORY SETTING

PIPELINE SAFETY

The U.S. Department of Transportation Office of Pipeline Safety (OPS) has primary responsibility for safety oversight of pipeline operations. In California, OPS has delegated the responsibility for periodic safety inspections of oil pipelines to the California Office of the State Fire Marshal. The California Health and Safety Code (Section 51010-51019.1) requires certain practices and procedures for pipeline maintenance and operation. The State Fire Marshal currently classifies the Pipeline as “inactive.” Before a pipeline is returned to active service for

transporting petroleum products, the State Fire Marshal requires that the new operator submit a request to change the status of the pipeline from “inactive” to “active,” including documentation of pipeline testing and inspection and updated documents, such as the operator’s inspection, maintenance, improvement, and replacement assessment for all segments of the pipeline. The State Fire Marshal then verifies that the pipeline materials of construction are chemically compatible with the petroleum products that are proposed to be transported prior to granting the request to return the pipeline to active status. Both the Code of Federal Regulations⁶ (CFR) and the California Health and Safety Code require periodic testing of pipelines.

The State Fire Marshal inspects all active-status pipelines in the State, although the exact period between inspections depends on staffing schedule and on the priority placed on the pipeline. The State Marshal requires the operator of the pipeline to keep accurate records of the materials transported in the pipeline and records of routine and special maintenance. These records are audited during the inspections.

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, the Contra Costa County Health Department’s local oversight program (LOP) oversees investigation or remediation of contaminated sites. The LOP oversees sites in cooperation with the San Francisco Bay Region Regional Water Quality Control Board (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 activities associated with installation of the 5,500-foot replacement pipeline segment, subsequent discharge to the stormwater or sewer system could require a permit from the RWQCB or the Contra Costa Sanitary District, respectively.

WORKER SAFETY

Federal and state laws contain occupational safety standards to minimize worker safety risks from both physical and chemical hazards in the work place. The federal Occupational Safety and Health Administration (OSHA) and the California Occupational Safety and Health Administration (Cal OSHA) 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. For construction of pipelines 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).

⁶ (CFR) Title 49 Part 186-199

SCHOOLS

Title 5 of the California Code of Regulations states that new school sites 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.

Contra Costa County

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 responsible agencies use for managing, monitoring, containing, and removing hazardous materials from the site of an actual or threatened accidental release. The Plan also identifies agencies within the county that are responsible for the effective management of produced or generated hazardous materials. In addition, the Contra Costa County Office of Emergency Services (OES) has prepared emergency and disaster plans and procedures. Applicable Contra Costa County General Plan policies regarding hazardous materials include:

- Policy 10-61: Hazardous waste releases from both private companies and from public agencies shall be identified and eliminated.
- Policy 10-62: Storage of hazardous material and wastes shall be strictly regulated.
- Policy 10-64: Industrial facilities shall be constructed and operated in accordance with up-to-date safety and environmental protection standards.
- Policy 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.
- Policy 10-68: When an emergency occurs in the transportation of hazardous materials, the OES shall be notified as soon as possible.
- Policy 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. (Contra Costa County, 1996)

HAZARDS AND HAZARDOUS MATERIALS IMPACTS DISCUSSION

SPBPC proposes to transport other petroleum products in addition to the fuel oil previously transported by PG&E; these include crude oil⁷, black oils⁸, and refined petroleum products. The

⁷ Crude oil is a naturally-occurring petroleum mixture that is pumped from wells. Crude oil is the basic petroleum feedstock that is processed at a refinery and it contains many different hydrocarbon molecules representing many potential products such as propane, butane, gasoline, jet fuel, diesel oil, fuel oil, wax, and asphalt. Because crude

petroleum products are limited to gasoline, jet fuel, diesel, and fuel oil⁹ products of refining crude oil. SPBPC has also indicated that it does not plan to transport liquefied petroleum products¹⁰ or natural gas. Even though crude oil contains a wider range of petroleum compounds than fuel oil, the physical properties and characteristics of crude oil in pipelines are generally equivalent to that of fuel oil, although some crude oils may contain substances that are more volatile than fuel oil. These substances are classified by the Code of Federal Regulations (49 CFR part 195, App C, Table 4) as more combustible than fuel oil. Depending on the crude oil transported through the Pipeline, some constituents may also be classified as more toxic than constituents of the fuel oil transported historically by PG&E. These constituents can include benzene or dissolved toxic gases, such as hydrogen sulfide.

Some of the petroleum products that SPBPC has indicated could be transported in the Pipeline are more volatile than fuel oil. For example, gasoline and some jet fuels have physical properties that place them in a more hazardous flammability category than fuel oil. This more hazardous flammability category would represent a change from the existing baseline conditions of the Pipeline (see Section 1, *Project Description*). The Code of Federal Regulations states that some crude oils are classified as toxic because of the levels of hydrogen sulfide they contain. Gasoline and the more volatile jet fuels are classified as more flammable than fuel oil because they have lower flashpoints¹¹.

As described in Section 1, *Project Description*, under the proposed project, the Hercules Pump Station would be abandoned. In the future, the Pump Station will be demolished, which will be the subject of a separate environmental review by the City of Hercules. In addition, the 44.2-acre Pump Station property will be remediated under the regulatory oversight of the California Department of Toxic Substances Control and will then be developed (most likely with residential or commercial uses), which will be the subject of a separate environmental review by the City of Hercules. After the Pump Station is abandoned, in order to operate the Pipeline, SPBPC would need to site and construct a new pump station along the Pipeline route; the new pump station could possibly have product heating capability. A separate environmental review will be required at the time that SPBPC determines a site and submits finalized plans for the new pump station.

oil is a natural product, there is a wide variation in the characteristics of a crude depending mostly on the wells from which it is obtained. To contrast crude oil with fuel oil (the product historically transported by the Pipeline), fuel oil is a residual oil derived from crude oil after various other oils have been removed.

⁸ Black oils are refined or partially-refined crude oils and have similar properties to crude oil.

⁹ Fuel oil is a residual oil derived from crude oil after various other oils have been removed. PG&E typically used low sulfur fuel oil in its historical operations.

¹⁰ Liquefied petroleum products are gases at normal pressures and temperatures, such as butane, propane, or methane.

¹¹ The flashpoint of a fuel is the lowest temperature at which it can form an ignitable mix with air. At this temperature the vapor may cease to burn when the source of ignition is removed. A slightly higher temperature, the fire point, is defined as the point at which the vapor continues to burn after being ignited. Neither of these parameters is related to the temperatures of the ignition source or of the burning fuel, which are much higher.

a) **Construction**

Pipeline construction activities associated with the 5,500-foot replacement pipeline segment in Martinez 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 environment 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 the size and type proposed for this project. The use of construction best management practices typically implemented as a condition of building and encroachment permits issued by local jurisdictions for construction would also minimize the potential negative effects to groundwater and soils. State and Federal regulations governing the construction of hazardous liquid pipelines require that the Pipeline be designed and constructed to meet the latest accepted industry standards. These regulations and industry standards specify the depth and the spacing that must be maintained in order to safely construct and operate pipelines. Construction of the replacement pipeline segment must follow these regulations and industry standards.

Impact 2.G-1: Construction activities associated with the 5,500-foot replacement pipeline segment in Martinez would require the use of certain materials such as fuels, oils, solvents, and glues that, in large quantities, could pose a potential hazard to the public or the environment if improperly used or inadvertently released. This would be a less than significant impact with implementation of Mitigation Measure 2.G-1.

Mitigation Measure 2.G-1: SPBPC and/or its contractor(s) shall implement construction best management practices including but not limited to 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.**

The CPUC mitigation monitor shall monitor compliance with these measures during construction.

Significance After Mitigation: Less than significant.

Pipeline Operation

With safety oversight and regulation by the State Fire Marshal, potential hazards to the public caused by any future operation of the Pipeline would be less than significant. To minimize the consequences of a possible leak and/or accidental spill, the Leak Detection and Supervisory Control and Data Acquisition System (SCADA) system for the Pipeline would be incorporated into the system adopted by Shell for their other pipeline operations in the United States. The Shell pipeline system consists of about 13,000 miles of pipeline of which about 1,100 miles are in California. Shell's SCADA system monitors the pipelines on a real-time basis from its control center located in Houston, Texas. The control sensors measure field pressure, temperature, flow level, density, and other parameters and store them in the Remote Terminal Unit (RTU). The RTU is constantly polled via leased telephone lines or satellite communication by the master control center. The master control center allows the operators to issue both routine operational commands and/or corrective commands (as needed) to allow the system to operate safely. Based on operations of other SCADA systems operated by Shell on similar pipelines, the Pipeline's SCADA system would be capable of identifying leaks from the Pipeline within 2-3 minutes. The Pipeline's SCADA system would activate block valves (shut off valves) to stop the flow within 1-2 minutes after a leak is detected.

To the extent that the existing leak detection system does not satisfy the applicable requirements or cannot be integrated with the new operator's SCADA system, the necessary upgrades would be made. This may involve the installation of new equipment on the Pipeline that does not currently exist and replacing key components of the SCADA system. Before the Pipeline is returned to operation, it must be upgraded in order to be compatible with the operator's SCADA system and to comply with the applicable laws and regulations. The State Fire Marshal must check that these tasks are completed prior to approving the Pipeline for operation.

- b) Implementation of the proposed project could result in an increase in the types of petroleum products, which would be transported through the Pipeline. The addition of crude oil, black oils and refined petroleum products could result in additional risks to public safety when compared to baseline conditions of transporting only fuel oil through the Pipeline. Risk to the public is measured in terms of two main factors, which are, 1) the likelihood or probability of an accident, and 2) the severity of the consequences of an accident. Both factors must be considered when evaluating the significance of an accident. For example, if there is a likelihood that a certain accident might occur over the foreseeable future is reasonably high, but the consequence of such an accident on the public or biota is minor, the impact of such an accident would be less than significant. Also, if a certain accident would result in severe consequences to the environment, but is highly unlikely to occur in the foreseeable future, the impact would be considered to be less than significant. Only accidents that are likely to occur with damage to the environment would be considered to be a significant impact.

The Pipeline can transport large volumes of petroleum products, which could be classified as flammable or may contain acutely toxic components, such as hydrogen sulfide. Accidents that involve these substances could result in public exposure to fire or to acutely hazardous airborne chemicals. In its application, SPBPC has stated that possible products to be considered would include gasoline, jet fuel, crude oil, black oils, and fuel oil. Of these substances, gasoline and some jet fuels are classified as highly flammable. Fires, which are caused by ignition of these flammable materials, can result in public exposure to heat radiation, which could result in severe burns, smoke inhalation or death. Although the heat from these fires would decrease rapidly with distance from the flame, the impacts near such an event could be severe. Explosion can occur if the flammable mixture is released at high temperatures when combustible vapors are present. In order for such an accident to occur, an ignition source would have to be present. This could be from a heater that would be used to lower viscosity of the product being shipped, or from another ignition source near an accidental release, such as an internal combustion engine on a truck. The proposed project does not include a heating system (product heater) for lowering the viscosity of the product before it is shipped in the pipeline. At this time, it is unknown whether a product heater would be needed in a future configuration of the Pipeline. Without a product heater, the likelihood of an ignition would be reduced. However, if a product heater is included in future configurations of the Pipeline, the risk of explosion should be determined in future hazard assessments for the additional equipment added to the Pipeline at that time. The use of a product heater, as it relates to the Pipeline would be regulated by the State Fire Marshal, and air emissions from the heaters would be regulated by the BAAQMD and would need an air permit.

Some crude oils contain hydrogen sulfide, a toxic, corrosive gas with an irritating odor. Airborne exposure to hydrogen sulfide could occur if it were released from the Pipeline. A release can pose a threat if a harmful concentration of the gas occurs at receptors.

Impact 2.G-2: If a product heater is included in future configurations of the Pipeline, the risk of explosion could be potentially significant. This would be a less than significant impact with implementation of Mitigation Measure 2.G-2.

Mitigation Measure 2.G-2: If a product heater is included in future configurations of the Pipeline, SPBPC shall conduct a hazard assessment that shall determine the risk of explosion for the additional equipment added to the Pipeline. At the time that a hazard assessment is completed, SPBPC shall submit it to the CPUC staff, BAAQMD, and the State Fire Marshal for review and approval. SPBPC shall ensure that operation of the product heater will not cause a significant risk of explosion and demonstrate this to the CPUC staff and State Fire Marshal. SPBPC shall comply with all recommendations and conditions of approval of the CPUC staff, BAAQMD, and the State Fire Marshal for operation the product heater.

Significance After Mitigation: Less than significant.

This assessment of the potential for accidental leaks and spills to the environment that could result from the operation of the Pipeline does not consider other future pipeline infrastructure that would be needed to move product through the Pipeline, such as a future pump station. Historical information on hazardous liquid pipelines in California indicates that, over a ten year period, the rate of accidental leaks of over 5 barrels from liquid petroleum pipelines has been about 5.3 incidences per 1,000 miles per year (California State Fire Marshal, 1993). This incident rate was observed for 7,500 miles of pipeline in California, and includes all pipelines that carry hazardous liquids. Assuming this incident rate, the estimated accident rate for the entire length of the Pipeline (35 miles) would be approximately 0.186 incidents per year or one incident every 5.4 years.¹² The estimated accident rate for portions of the pipeline near sensitive receptors (about half of the length of the Pipeline), would be approximately 0.093 incidents per year, or one incident every 10.8 years.¹³ Thus, there is a potential for a leak to occur during the life of the Pipeline. Accidents that involve a small spill, such as 5 or less barrels, may have significant consequences at the point where the Pipeline crosses a watercourse that leads to the San Francisco Bay. To minimize such an impact, **Mitigation Measure 2.G-2** requires that remotely-operated block valves be installed on the 5,500-foot replacement segment where it crosses Alhambra creek and an unnamed drainage near Ferry Street.

If the volume of petroleum products involved in an accident were greater than five barrels, the consequence would be greater. However, the probability of occurrence of such an accident would be much lower than a small spill, because a much larger break in the line would have to occur. Statistics reported in the State Fire Marshal Report on past accidents, indicates that the probability of occurrence of larger spills is much lower than smaller spills and is not expected to occur in the foreseeable future.

Impact 2.G-3: An accidental spill could occur at the crossing of Alhambra Creek, near the Bay. This would be a less than significant impact with implementation of Mitigation Measure 2.G-3.

Mitigation Measure 2.G-3: SPBPC and/or its contractor(s) shall install remotely activated block valves (shut off valves) on the replacement pipeline segment at locations designed to provide optimum protection against spills near Alhambra Creek and the unnamed drainage near Ferry Street as approved by the applicable governmental agencies. The CPUC mitigation

¹² Number of incidents ≈ 5.3 incidences/1000 mile-years, or 0.0053 incidents per mile per year; Incidences for the entire length of the Pipeline $\approx (0.0053 \text{ incidents per mile per year}) \times (17.5 \text{ miles}) \approx 0.186$ incidents per year, or $1 / 0.0928$ incidents per year \approx one incident every 5.4 years.

¹³ Number of incidents ≈ 5.3 incidences/1000 mile-years, or 0.0053 incidents per mile per year; Incidences for the Pipeline near sensitive receptors $\approx (0.0053 \text{ incidents per mile per year}) \times (17.5 \text{ miles}) \approx 0.093$ incidents per year, or $1 / 0.0928$ incidents per year \approx one incident every 10.8 years.

monitor shall inspect this pipeline segment to ensure that the block valves are installed at the approved locations prior to operation of the Pipeline.

Significance After Mitigation: Less than significant.

There is also the possibility of a major accident that could cause injury from an explosion, or fire. The throughput rate for the pipeline is not expected to change significantly from baseline conditions, and continued use of the pipeline to transport fuel oil would not result in a major fire or explosion, since it is not a highly flammable substance. However, if there is a change in product from fuel oil to more flammable substances (gasoline or jet fuel), the conditions needed to result in an explosion or fire could occur. Such an explosion or fire would require an ignition source near an accidental release of highly flammable product. Based on pipeline accident data for the State (California State Fire Marshal, 1993), these types of pipeline accidents have been very infrequent (about 0.5 incidents per 1,000 miles per year), or once every 50 years for this pipeline length. In addition, for accidents that could result in a death, the probability of such an event would be even lower (0.042 fatalities per thousand miles per year). Because of this extremely low probability, the impact would be less than significant.

If the pipeline project is not completed, then other modes of transportation would be needed to ship product to and from the refineries and to other destinations, and it would most probably be by truck. The U.S. General Accounting Office (GAO) conducted a review of pipeline accidents that have occurred over a ten year period (GAO, 2000), and these accidents were compared with other modes of transportation of hazardous liquids. The GAO report stated that, over the ten year period, pipeline transport was the safest of the alternatives, and accidents resulting in injury and/or fatality were significantly less than for other modes. Truck transport resulted in 232 times as many incidences. Thus, the potential for accidents from the pipeline would be much less than if product were shipped by other modes.

- c) There are no schools within 1/4 mile of the 5,500-foot replacement pipeline segment in Martinez. However, the Pipeline would operate within 1/4 mile of one school in Richmond (Verde Elementary School), two schools in Crockett (John Swett High School and Carquinez Middle School), three schools in San Pablo (Lake Elementary School, Montalvin Manor Elementary School and Seaview Elementary School), and two schools in Rodeo (Garretson Heights School and St. Patrick's School). During normal operations, no leaks or emissions would occur from the Pipeline and therefore, none of these schools would be subject to significant impacts. Therefore hazardous materials impacts to schools, during normal operations, would be less than significant.

If there is an accidental spill or an accidental emission of a toxic substance at a portion of the Pipeline near one of the schools, the impact on that school could be significant. However, the probability that such an accident could occur on a portion of the Pipeline that is near one of the eight schools is much lower than the probability for an accident

over the entire length of the Pipeline. The total combined length of portions of the Pipeline that are near a school is conservatively estimated to be approximately 10 miles of the Pipeline. Therefore, the estimated accident rate for portions of the Pipeline that are near schools would be approximately 0.053 incidents per year or one incident every 18.9 years.¹⁴ Because of the expected low probability of occurrence, the impact would be less than significant.

In order to minimize the impact of an accidental spill, the new pipeline operators will have to adopt a spill prevention and containment plan. The most recent plan held by the previous owners focused mainly on the Pump Station and the piping near that station (PG&E, 2003), because the remainder of the pipeline had been inactive for a number of years. SPBPC will need to submit a new spill prevention and containment plan covering the entire length of the pipeline to the CPUC staff for review and approval.

Impact 2.G-4: Accidental spills could occur at any point along the Pipeline. SPBPC will need to develop a specific spill and containment plan specific to their future operations. Without such a plan this could be a potentially significant impact. This would be a less than significant impact with implementation of Mitigation Measure 2.G-4.

Mitigation Measure 2.G-4: SPBPC shall submit a new spill prevention and containment plan covering the entire length of the pipeline to the Department of Fish and Game and CPUC staff for review and approval prior to restoring the Pipeline operation.

Significance After Mitigation: Less than significant.

- d) The Pipeline passes through or is adjacent to sites that are included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (the California Department of Toxic Substances Control Hazardous Waste and Substances Site List, or Cortese list). In October 2004, ESA searched the Cortese List for areas along the Pipeline. The Cortese list is a compilation of information from various sources listing potential and confirmed hazardous waste and hazardous substances sites in California. **Table 2.G-1** shows results of ESA's Cortese list search.

¹⁴ Number of incidents = 5.3 incidences/1000 mile-years, or 0.0053 incidents per mile per year; Incidences for the Pipeline near schools = (0.0053 incidents per mile per year) x (10 miles) \approx 0.053 incidents per year, or 1 / 0.053 incidents per year \approx one incident every 18.9 years.

**TABLE 2.G-1
CORTESE LIST SEARCH RESULTS FOR AREAS ALONG THE PIPELINE**

<u>Site Name</u>	<u>Site Address</u>
Southern Pacific Pipelines	1156 Castro Street, Richmond 94804
Cooper Chemical	2801 Giant Road, Richmond 94806
Dennison Eastman Corp.	3541 Collins Street., Richmond 94801
Reaction Products	840 Morton Avenue, Richmond 94804
Hercules Properties, Ltd.	560 Railroad Avenue, Hercules 94547
American Standard Products	3002 Giant Road, San Pablo 94806

SOURCES: DTSC (2004); ESA (2004)

Movement of product through the Pipeline would not affect any contaminated materials reported on 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. However, construction activities associated with the 5,500-foot replacement pipeline segment would have the potential to encounter unknown hazardous materials contamination.

Impact 2.G-5: Construction activities associated with the 5,500-foot replacement pipeline segment in Martinez could encounter soil or groundwater contaminated by previous activities in the area. Excavation or extraction of contaminated soil and/or groundwater could expose construction workers and the public to potentially hazardous conditions. This would be a less than significant impact with implementation of Mitigation Measures 2.G-5a and 2.G-5b.

Mitigation Measure 2.G-5a: SPBPC shall conduct a Phase I Environmental Site Assessment along the length of the proposed 5,500-foot replacement pipeline alignment to ascertain the potential for construction activities to encounter impacted soil and/or groundwater. SPBPC shall submit the Phase I Environmental Site Assessment to CPUC staff for review and approval. If the Phase I indicates that construction of the 5,500-foot replacement pipeline segment would likely disturb impacted materials, a Phase II Environmental Site Assessment shall be conducted to quantify levels of contamination along the replacement pipeline alignment and to establish appropriate measures to protect construction workers and the general public from exposure to impacted materials. If a Phase II is conducted, SPBPC shall submit the Phase II Environmental Site Assessment to the CPUC staff for review and approval. In addition, if the Phase I or Phase II Environmental Site Assessments determine that construction activity would involve trenching or tunneling through potentially impacted areas, SPBPC shall prepare an environmental

site health and safety plan to address worker safety hazards. The plan shall comply with all applicable OSHA regulations regarding worker safety. The Phase I, Phase II (if necessary) and the environmental site health and safety plan (if necessary) shall be submitted to CPUC staff for review and approval.

Mitigation Measure 2.G-5b: SPBPC and/or its contractor(s) shall ensure that impacted soil generated by construction activities 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 shall 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 RWQCB or Contra Costa Sanitary District, respectively. The CPUC mitigation monitor shall monitor compliance with this measure.

SPBPC and its contractor(s) would be required to comply with all applicable OSHA regulations regarding worker safety. The OSHA-specified method of compliance will be dependent upon the severity of impact to soil or groundwater (if any), as determined by the Phase I and/or Phase II Environmental Site Assessments.

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; however, construction activities associated with the 5,500-foot replacement pipeline segment could restrict exit routes from the adjacent Martinez Regional Shoreline Park. SPBPC would be required to obtain necessary encroachment permits from the City of Martinez and the East Bay Regional Park District prior the start of construction. 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 Section 2.O, *Traffic and Transportation*.

Impact 2.G-6: Construction activities associated with the 5,500-foot replacement pipeline segment in the City of Martinez could temporarily restrict evacuation of the Martinez Regional Shoreline Park. This would be a less than significant impact with implementation of Mitigation Measure 2.G-6.

Mitigation Measure 2.G-6: Implement Mitigation Measure 2.O-1b.

Significance After Mitigation: Less than significant.

- h) Construction activities associated with 5,500-foot replacement pipeline segment would occur within an urbanized area of Martinez. Most of the underground pipeline is within

city streets and the Union Pacific Railroad right-of-way. Future operation of the Pipeline would comply with Contra Costa hazardous materials policies and regulations set forth by the State Fire Marshal and therefore, would not expose people or structures to wildland fires.

REFERENCES – Hazards and Hazardous Materials

- Biagi, Allen, Fire Marshal, Rodeo-Hercules Fire Department, telephone conversation, March 15, 2001.
- Department of Toxic Substances Control (DTSC), *DTSC's Hazardous Waste and Substances Site List (Cortese List)*, http://www.dtsc.ca.gov/database/Calsites/Cortese_List.cfm, accessed October 21, 2004.
- California State Fire Marshal, *Hazardous Liquid Pipeline Risk Assessment*, March 1993.
- City of Martinez Community Development Department, *Martinez Intermodal Station Project Draft Environmental Impact Report*, 1994.
- Contra Costa County, *Contra Costa County General Plan 1995-2010*, July 1996.
- General Accounting Office (GAO), *Report on Pipeline Safety to the Ranking Minority Member, Committee on Commerce, House of Representatives*, May 2000.
- National Institute for Occupational Safety and Health and Occupational Safety and Health Administration, *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*, October 1985.
- Pacific Gas and Electric Company (PG&E), *Spill Prevention Control and Countermeasure Plan (SPCC Plan)*, January 2003.
- Pacific Gas and Electric Company, *Supplement to 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*, May 2004.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
I. LAND USE AND PLANNING –				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

EXISTING CONDITIONS

The Pipeline is located primarily either within the Union Pacific Railroad right-of-way or within public street rights-of-ways, and passes through the cities 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 proposed project consists of the sale of the Pipeline and Pump Station that have not been in regular use for approximately 22 years, although the Pipeline has been maintained to provide standby capability and has been used for emergency transmissions. In addition, the construction of a 5,500-foot replacement pipeline segment by SPBPC would be a reasonably foreseeable activity that would occur as a result of the CPUC's approval of PG&E's and SPBPC's applications.

APPLICABLE LAND USE PLANS AND POLICIES

City of Richmond General Plan

The 1994 Richmond General Plan is the community's long-range planning document that contains goals and policies intended to guide development within the City. A segment of the Pipeline runs through the city of Richmond, originating in an area west of Castro Street and traveling 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.

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” (City of Richmond, 1994). Moving further to the north, for a short period, the Pipeline borders lands designated *Low Density Residential*, or lands to be used for single-family residences, townhouses, and duplexes near the North Richmond area. 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 (City of Richmond, 1994).

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 south side of the tracks).

The General Plan includes the following specific goal that is applicable to the proposed project:

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

North Richmond Shoreline Specific Plan

For just over a mile, in a northern section of the city of Richmond, the Union Pacific Railroad 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.” The Plan’s relevant objectives and policies include the following:

- Objective 1: Encourage 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.
- Objective 3: Protect existing and new land uses by providing adequate buffer zones that avoid or mitigate conflicts in land use (Brady and Associates, 1993).

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).

City of Richmond Zoning Ordinance

The City of Richmond's Zoning Ordinance, most recently adopted in 1997, and containing revisions through April 1999, regulates land use and development of land within the city of Richmond. The Zoning Ordinance includes identification of allowed land uses, development standards (e.g., lot size, building height, setbacks, etc.), parking requirements, and the placement of signs.

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; PG&E currently has a Conditional Use Permit for the Pipeline. Section 15.04.910.070 of the Zoning Ordinance states that a Conditional Use Permit and its conditions must be recorded by the applicant and those conditions must continue to run with the land. An endorsed copy of the recorded CUP must be kept on file at the Planning Department.

City of Pinole General Plan

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, outside of the Union Pacific

Railroad right-of-way, and parallel to Cypress Avenue. The Pipeline re-enters the Union Pacific Railroad 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 that runs through 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 LU1P-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 (City of Pinole, 1995).

City of Pinole Zoning Ordinance

The City of Pinole's Zoning Ordinance replicates the land uses designated by the General Plan; none of the land uses specifically permit a pipeline. However, it is anticipated that the Pipeline would likely be considered under Zoning Ordinance Section 17.36.020, *Special Uses*, which states that applications "for uses not specified in any land use district shall be made to the planning commission in the regular manner" (Dowswell, 2001). The City of Pinole granted a use permit (U-74-7) in April 1974 for the Pipeline.

City of Hercules General Plan

The City of Hercules General Plan governs land use designations within the city of Hercules. A segment of the Pipeline runs through the City of Hercules and the Pump Station property is also located within the city of Hercules along the east side of San Pablo Avenue. The Pipeline enters the city of Hercules from the city of Richmond in the Union Pacific Railroad 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 as *Public-Park* (San Pablo Bay Regional Park), *Waterfront Commercial*, *General Commercial*, and *Planned Office – Research and Development*.

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* encompassed by the New Pacific Properties Specific Plan, which identifies land uses primarily for residential development. 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*. 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 and 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” (City of Hercules, 1990).

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 of Hercules, 1976). When SPBPC is ready to commence operations of the Pipeline with a wider range of products (see Section 1, *Project Description*) some modification of this permit may be necessary.

The General Plan contains the following policy relevant to the proposed project:

- 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.

City of Hercules Zoning Ordinance

The overall purpose of the Hercules Zoning Ordinance is to promote the public health, safety, and welfare and general prosperity with the aim of preserving a wholesome, serviceable, and attractive community. Under the Hercules Zoning Ordinance, specific purposes of the Industrial district are to:

- Reserve appropriately located areas for heavy and light industrial uses consistent with the General Plan and the character of Hercules.
- 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.

- Strengthen the City's economic base and provide for economic diversity, employment, and an adequate daytime population within the city.
- Allow for new light industrial uses related to evolving technologies, research and development, communications, and information processing.

Contra Costa County General Plan

The Contra Costa County General Plan, as amended in 1995, governs land use designations in unincorporated areas of the County. 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 it 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 follow the Bay shoreline 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 the following land uses in unincorporated areas, including Rodeo, Crockett, Port Costa, and the Port Chicago area:

- *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. SPBPC would be required to submit a hazardous materials business plan to the Contra Costa County Health Services Department for its approval, a hazardous materials business plan, which

would disclose the types and amounts of hazardous materials that would be used during operation of the Pipeline.

City of Martinez General Plan

The Martinez General Plan, as amended in 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) (City of Martinez, 1995).

City of Martinez Zoning Ordinance

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);
- *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 General Plan

The 2020 Pittsburg General Plan, adopted in October 2004, addresses issues related to physical development, growth, and conservation of resources in the City’s Planning Area. The General Plan:

- Outlines a vision of long-range physical and economic development and hillside and resource conservation that reflects the aspirations of the community;

- Provides strategies and specific implementing actions that will allow this vision to be accomplished;
- Establishes a basis for judging whether specific development proposals and public projects are in harmony with Plan policies and standards;
- Allows City departments, other public agencies, and private developers to design projects that will enhance the character of the community, preserve and enhance critical environmental resources, and minimize hazards; and
- Provides the basis for establishing and setting priorities for detailed plans and implementing programs, such as the Zoning Ordinance, specific plans, and the Capital Improvement Program.

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. Through the city of Pittsburg, the Pipeline traverses through land designated by the General Plan as *Utility/ROW*, which is intended to designate land area dedicated to utilities, infrastructure or road right-of-way. In addition, the Pipeline runs adjacent to lands designated as *Industrial, Open Space, Business Commercial, Medium Density Residential, Low Density Residential, and Service Commercial* by the General Plan. The Mirant Pittsburg Power Plant is located in the *Northeast River Planning* area of the city.

The following relevant policies are contained within the 2020 Pittsburg General Plan:

- Policy 2-P-37: Ensure that development in Northeast River is limited to industrial activities and supporting business and service uses.
- Policy 2-P-38: During project review, ensure that all industrial development along public streets and in areas adjacent to Downtown maintain at least a 25 foot wide landscaped buffer (using trees and shrubs for screening) along the street.
- Policy 2-P-45: Pursue opportunities for a multi-use trail along the waterfront as industrial properties are redeveloped and remediated (City of Pittsburg, 2004).

San Francisco Bay Plan

The San Francisco Bay Plan is maintained and administered by Bay Conservation and Development Commission (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 (BCDC, 2003).

The San Francisco Bay Plan states that “[p]ipeline 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” (BCDC, 2003).

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.

OTHER PLANNING CONSIDERATIONS

San Francisco Bay Trail

The Bay Trail is a planned recreational corridor that, when complete, will encircle San Francisco and San Pablo Bays with a continuous 400-mile network of bicycling and hiking trails. It will connect the shoreline of all nine Bay Area counties, link 47 cities, and cross the major toll bridges in the region. To date, approximately 210 miles of the route, or slightly more than half the Bay Trail’s ultimate length, has been completed (ABAG, 2004).

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 areas. 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. In addition, a portion of a planned Bay Trail alignment is currently under construction in the immediate vicinity of the 5,500-foot replacement pipeline segment corridor (see Section 2.M, *Public Services* for additional information).

East Bay Regional Parks District Easements

In September 2000, a Memorandum of Understanding (MOU) was entered into by EBRPD and the City of Martinez to address easement issues at the Martinez Regional Shoreline Park. This MOU was entered into, partly to address the City of Martinez’s desire to relocate that portion of PG&E’s underground Pipeline (to facilitate construction of the Martinez Intermodal Rail Station) located within the Park between Ferry Street and the turnaround for the Horse Arena, to a new location within the Park. In addition, the City desired to relocate a different portion of the Pipeline that was located outside of the Park, into a new easement within the Park.

In February 2001, EBRPD granted PG&E an easement to “excavate for, install, replace (of the initial size or any other size), maintain and use” the Pipeline for the purposes of “conveying fuel oil, with the necessary and proper valves and other appliances...” The easement area that has been granted to PG&E consists of a 15-foot wide strip of land through a portion of the Martinez Regional Shoreline Park. Under the easement agreement, PG&E must provide written notification to EBRPD’s Land Acquisition Manager at least 48 hours in advance of any construction activities, unless such activities are performed under emergency conditions (Contra Costa County Recorder Office, 2001).

West Contra Costa Unified School District

The West Contra Costa Unified School District (WCCUSD) was in the process of siting a new school to the west of the Pump Station property along San Pablo Avenue near the Pipeline route in the city of Hercules. However, as of the date of publication of this Draft MND, WCCUSD has decided not to further pursue this specific site for a new school (Mandell, 2004).

LAND USE IMPACT DISCUSSION

- a) The Pump Station and the Pipeline are existing structures that have been maintained in standby condition since 1982, and used generally for emergency purposes although the Pipeline is still currently classified by the State Fire Marshal as “inactive”. Under the proposed project, SPBPC would abandon the Pump Station and remove it from public utility service. The property would then be transferred to SCVHG. SPBPC’s abandonment of the Pump Station and removal from public utility service would not, by itself, result in any physical changes and therefore, would not result in any land use impacts.

The existing Pipeline runs through or adjacent to several residential areas along the public right-of-way, and along the Union Pacific Railroad right-of-way throughout Contra Costa County. Recommencement of Pipeline operations would not constitute a physical barrier to established or contemplated communities. Therefore, the proposed project would have a less than significant impact to the physical division of an established community.

- b) The 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 5,500-foot replacement pipeline segment in Martinez skirts development completely, and its construction is compatible with adopted local plans and zoning ordinances. However, the City of Martinez is currently in the process of developing a specific plan for the downtown area which could change the existing zoning of several properties south of the replacement segment alignment (Pearson, 2004). This proposed specific plan is still under development and has not been published as of the publication of this Draft MND. In general, the existing Pipeline and the proposed 5,500-foot replacement

pipeline segment pass through industrial and 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).

Residential and retail structures have recently been constructed near the Hercules Pump Station property. In addition, the West Contra Costa Unified School District is in the process of siting a new school in the same area. Under the proposed project, the Pump Station facility would be abandoned, which would result in a beneficial land use impact to adjacent residential land uses.

BCDC would likely require SPBPC to obtain a 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.

Construction of the 5,500-foot replacement pipeline segment in the city of Martinez could result in adverse land use impacts such as restricted access to the Bay Trail. Impacts to the Bay Trail associated with the 5,500-foot replacement pipeline segment as well as from operation of the Pipeline are discussed in further detail in Section 2.M, *Public Services*. Mitigation measures are provided in Section 2.M, *Public Services* to address these impacts. Temporary aesthetics impacts associated with construction activities are addressed in Section 2.A, *Aesthetics* and appropriate mitigation measures are provided.

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

- c) As discussed in Section 2.D, *Biological Resources*, the proposed project would not conflict with any adopted federal or state Habitat Conservation Plans. However, as discussed in Section 2.D, *Biological Resources*, the installation of the 5,500-foot replacement pipeline segment could conflict with the EBRPD Master Plan for the Martinez Shoreline Park. **Mitigation Measure 2.D-4** ensures that this impact will remain less than significant.

REFERENCES – Land Use and Planning

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Association of Bay Area Governments, *San Francisco Bay Trail*,
<http://www.abag.ca.gov/bayarea/baytrail/baytrail.html>, accessed October 11, 2004.

Bay Conservation and Development Commission (BCDC), *San Francisco Bay Plan*, August 2002, as amended 2003.

City of Hercules, City Council Resolution, August 9, 1976.

City of Hercules, *Hercules General Plan*, 1990.

City of Hercules, *Zoning Ordinance*, October 13, 1998, as amended January 5, 2004.

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

City of Martinez, *City of Martinez Zoning Ordinance*, [no date].

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

City of Pinole, *City of Pinole Zoning Ordinance*, as amended 1998.

City of Pittsburg, *Pittsburg General Plan*, October 2004.

City of Richmond, *City of Richmond Zoning Ordinance*, January 1, 1997, as amended April 1999.

City of Richmond, *North Richmond Shoreline Specific Plan*, June 1993.

City of Richmond, *Richmond General Plan*, August 1994.

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

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

Contra Costa County Recorder Office, *Agreement Modifying an Easement*, February 8, 2001.

Impact Sciences Inc., *New Pacific Properties Specific Plan Draft Environmental Impact Report*, December 1999.

Mandell, Michael D., Archer Norris (Attorneys for West Contra Costa Unified School District), written communication, November 18, 2004.

PBR, *New Pacific Properties Specific Plan*, April 11, 2000.

Pearson, Richard, Community Development Director, City of Martinez, Meeting notes, September 22, 2004.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
J. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 or adjacent to 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 5,500-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 hillside 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 reliable 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 that 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. (Cal. Pub. Res. Code § 2711.)

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:

- Policy 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).
- Policy 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 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, 2004).

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 5,500-foot replacement pipeline segment. 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-3 by the State Geologist. As a result, no impact to existing mineral resources is expected through the sale and future operation of the Pipeline.

REFERENCES – Mineral Resources

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

City of Martinez, *Martinez General Plan*, 1995.

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

City of Pittsburg, *Pittsburg General Plan*, 2004.

City of Richmond, *Richmond General Plan*, 1994.

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

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.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
K. 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 Union Pacific Railroad right-of-way. The major source of noise in this section of the Pipeline is the sound of passing trains. 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 Hercules Pump Station, 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 Hercules in December 1996 showed a DNL 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 Pipeline alignment would cross though primarily non-residential land uses along its length. Some construction noise could be expected from the 5,500-foot replacement pipeline segment in Martinez and from day-to-day maintenance activities along the Pipeline. Construction of the replacement pipeline segment would occur within land uses designated for industrial uses, open space and recreational uses. There are no residential land uses adjacent to the construction area.

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;

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.

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, would not result in any changes to the ambient noise environment. However, following completion of the sales transaction, SPBPC is expected to return the Pipeline to active service. Construction hour limitations and construction equipment noise standards, as specified by the Martinez General Plan Noise Element and Noise Ordinance would be applicable to construction activities associated with the 5,500-foot replacement pipeline segment. Routine maintenance of the Pipeline, along its entire length, would involve some minor and temporary noise sources; however, it would not raise any long-term issues related to conflicts with local noise ordinance standards or general plan policies. The relevant standards and policies for the applicable jurisdictions are provided below.

Contra Costa County

The Contra Costa County General Plan Noise Element 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 2.K-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.

City of Richmond

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 shown in **Table 2.K-1**. The City's noise ordinance restricts construction activities to daytime hours between 7:00 a.m. to 7:00 p.m. on weekdays and 8:30 a.m. to 6:00 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.

City of Pinole

The City of Pinole General Plan also uses the State of California Land Use Noise Compatibility Matrix (shown in **Table 2.K-1**) as a standard for reviewing projects. The goal for maximum outdoor and indoor noise levels in residential areas are a DNL of 60 dBA and 45 dBA respectively.

**TABLE 2.K-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

SOURCE: California Governor's Office of Planning and Research (2003)

City of Hercules

The City of Hercules General Plan uses a DNL of 60 dBA as the maximum acceptable outdoor noise level in residential areas. **Table 2.K-2** shows the Land Use Compatibility Matrix for Community Noise Environments in the City of Hercules.

**TABLE 2.K-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

SOURCE: City of Hercules (1990)

City of Martinez

The City of Martinez does not have a General Plan noise element. 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 2.K-1** would be used as a standard for reviewing this project.

City of Pittsburg

The City of Pittsburg uses the State of California Land Use Noise Compatibility Matrix (shown in **Table 2.K-1**) as a standard for reviewing projects. Stationary noise sources in Pittsburg are regulated through conditions of approval for local permits. With respect to noise / land use compatibility, the City recognizes 65 DNL as the maximum level of noise that is normally

acceptable for residential uses and parks (City of Pittsburg, 2004). 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 proposed project would produce temporary construction noise sources. Construction of the 5,500-foot replacement pipeline segment in Martinez would occur within land uses designated for industrial uses, open space and recreational uses. 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 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 have 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 the 5,500-foot replacement pipeline segment would occur, does not have specific construction-related noise standards. However, under the requirements of **Mitigation Measure 2.K-1** below, SPBPC would require its contractors to limit construction activity to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday. 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, when SPBPC resumes operation of the Pipeline with a new pump station located somewhere along the pipeline route, noise from equipment at a future pump station could result in potential noise impacts. However, as discussed in Section 1, *Project Description*, the location of the future pump station and the characteristics of its associated equipment is unknown and will be the subject of additional environmental review in the future.

Impact 2.K-1: Short-term construction activities for the 5,500-foot replacement pipeline segment could expose people to or generate noise levels in excess of standards described in Table 2.K-1 as normally acceptable. This would be a less than significant impact with implementation of Mitigation Measure 2.K-1.

Mitigation Measure 2.K-1: During construction of the 5,500-foot replacement pipeline segment in Martinez, SPBPC shall implement the following construction noise reduction measures:

- **Require construction contractors to limit construction activity to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, or as otherwise specified by the City of Martinez.**
- **Conduct regular equipment maintenance on all construction equipment and install mufflers on all engine-powered 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 by direct inspection during construction.

Significance After Mitigation: Less than significant.

- b) The proposed project would involve temporary sources of ground borne vibration and ground borne noise during construction of the 5,500-foot replacement pipeline segment from operation of heavy equipment. Construction activities, which would involve 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 construction of the replacement pipeline segment would take place in an area designated for industrial uses or as open space where there are no nearby receptors, and because the duration of impact at any one location would be 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.
- c) Because the Pipeline is primarily underground and because oil pipelines do not create audible sound during operations, noise at other locations along the existing Pipeline would not increase as a result of recommencing operation of the Pipeline. Therefore, the impact would be less than significant and no mitigation is required.
- d) The proposed project would result in temporary and intermittent noise increases due to construction of the 5,500-foot replacement pipeline segment in Martinez. The effect of this noise would depend upon the amount of noise that 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 5,500-foot replacement pipeline segment would be located in areas designated for industrial uses and as open space.

With implementation of **Mitigation Measure 2.K-1** above, appropriate engine-powered construction equipment would have mufflers installed to control noise impacts and the

residual impact of project construction would occur only during the less sensitive daylight hours, and thus would not disrupt sleep. In addition, there are no noise sensitive receptors adjacent to the proposed construction site. 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 2.K-2: Construction-related activities would lead to a temporary increase in the ambient noise levels in the project vicinity above existing levels. This would be a less than significant impact with implementation of Mitigation Measure 2.K-2.

Mitigation Measure 2.K-2: Implement Mitigation Measure 2.K-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.

REFERENCES – Noise

California Governor's Office of Planning and Research, *2003 General Plan Guidelines*, 2003.

City of Hercules, *Hercules General Plan*, 1990.

City of Pittsburg, *Pittsburg General Plan*, October 2004.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
L. 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

Population

Every two years, the Association of Bay Area Governments (ABAG) produces a demographic forecast for the Bay Area known as *Projections*. *Projections 2003* estimates that population growth in Contra Costa County from 2000 to 2010, will increase from approximately 361,110 to 418,870 (approximately 17 percent). From 2010 to 2020, population growth is projected to slow, reaching approximately 476,520 (approximately 14 percent) and from 2020 to 2030, population growth is projected to slow even further, reaching 536,410 (approximately 13 percent) (ABAG, 2002). Population growth in areas where the Pipeline traverses is shown in **Table 2.L-1**.

**TABLE 2.L-1
PROJECTED POPULATION GROWTH IN
THE PIPELINE AREAS**

<u>Area</u>	<u>2000 Population</u>	<u>2010 Population</u>	<u>% Change 2000-2010</u>	<u>2020 Population</u>	<u>% Change 2010-2020</u>	<u>2030 Population</u>	<u>% Change 2020-2030</u>
Hercules	19,488	22,500	15.5%	29,700	32.0%	30,600	3.0%
Martinez	35,866	37,800	5.4%	40,100	6.1%	42,300	5.5%
Pinole	19,039	20,200	6.1%	22,000	8.9%	22,800	3.6%
Pittsburg	56,769	67,700	19.3%	85,000	25.6%	99,200	16.7%
Richmond	99,216	107,200	8.0%	118,400	1.0%	127,200	7.4%
Contra Costa County	948,816	1,071,700	13.0%	1,185,200	10.6%	1,257,300	6.1%

SOURCE: ABAG (2002)

Housing

Projections 2003 estimated that there were approximately 344,129 housing units in Contra Costa County in 2000 and projected that there will be approximately 364,910 housing units in 2005. There are currently an estimated 353,983 housing units in Contra Costa County, with 34,625 housing units (approximately 9.5 percent in Richmond). The cities of Hercules, Martinez, Pinole, Pittsburg, and Richmond combined contain an estimated 79,832 housing units in 2000, or 23 percent of the housing stock in Contra Costa County (ABAG, 2002). The average vacancy rate for Contra Costa County is approximately 2.9 percent. Vacancy rates for the cities of Hercules, Martinez, Pinole, Pittsburg, and Richmond range from 1.2 percent in Pinole to 3.9 percent in Richmond (U.S. Census Bureau, 2000).

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 as a whole. 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 Pipeline is an existing structure that has in the past and would in the future be used to transport crude oil and other black oils as well as refined petroleum products. While the Pipeline has not been in regular use since 1982, it has been maintained to provide stand-by capability in case of natural gas supply interruptions or similar situations. The most recent movement of oil was in 1991. Following 1991, use of the Pipeline has been limited to maintaining its integrity. In addition, PG&E staff has remained at the Hercules Pump Station for testing and maintenance.

Therefore, the sale and future operation of the Pipeline would not, of itself, induce population growth, directly or indirectly; rather, it would most likely be used to meet current and anticipated future demand for crude oil and other black oils as well as refined petroleum products.

- b) The existing Pipeline currently passes underground, alongside existing residential areas in the Richmond, Pinole, Rodeo and Crockett areas. In addition, in the city of Hercules, the Pump Station is located adjacent to a recently-developed residential community, where additional residential and commercial uses and a new school are also planned.

However, the Pipeline is located primarily within existing Union Pacific Railroad and street rights-of-way. Although the Pipeline may be used on a more regular basis, the Pipeline would be one of several located within public rights-of-way, and would be set back from residential uses in the railroad right-of-way. 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. Therefore, operation of the Pipeline would not displace any existing housing.

Only minor changes to the Pipeline are anticipated as a result of the proposed project. The project would require construction in the city of Martinez to replace a 4,000-foot missing segment of the pipeline; however, the 5,500-foot replacement pipeline segment would be replaced along an easement that runs through the Martinez Regional Shoreline Park. No housing would be displaced by the 5,500 replacement pipeline segment.

Therefore, operation of the Pipeline and construction of the 5,500-foot replacement pipeline segment would not result in the displacement of any existing housing.

- c) See discussion for 2.L(a), above. No persons occupy structures located over the Pipeline or along the 5,500-foot replacement segment that would be replaced by SPBPC. Therefore, the proposed project would not result in either the displacement of residential structures or displacement of people.

REFERENCES – Population and Housing

Association of Bay Area Governments, *Projections 2003*, December 2002.

City of Hercules, *Hercules General Plan*, 1990.

U.S. Census Bureau, *Census 2000*, http://factfinder.census.gov/home/saff/main.html?_lang=en, 2000.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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M. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

FIRE PROTECTION AND EMERGENCY MEDICAL RESPONSE

The Pipeline and Pump Station are located in areas served by several fire protection and emergency medical response service providers.

Contra Costa County Fire Protection District

The Contra Costa County Fire Protection District (CCFPD) 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, Pittsburg, Pleasant Hill, San Pablo, Walnut Creek, and nearby unincorporated areas. The CCCFPD has over 30 stations; each station averages two to four engines and three firefighters, one of which is a paramedic. Stations in the vicinity of the Pipeline include Stations 12, 13 and, 14, which are located in the city of Martinez, and Station 70, which is located in the city of San Pablo.

Crockett-Carquinez Fire Protection District

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

Rodeo-Hercules Fire Protection District

The Rodeo-Hercules Fire Protection District (RHFPD) provides fire protection and emergency medical response services to the City of Hercules and the unincorporated County area of Rodeo. RHFPD staffs two stations: Station No. 76 located at 1680 Refugio Valley Road in Hercules and Station No. 75 located at 326 Third Street in Rodeo (RHFD, 2004).

City of Pinole Fire Department

The City of Pinole Fire Department (PFD) provides fire protection and emergency medical response services to the City of Pinole and the County area of Tara Hills. PFD also provides back up for the adjacent cities of Hercules, Crockett, Rodeo, San Pablo, and Richmond. The PFD staffs two stations: Station No. 73 located at 880 Tennent Avenue and Station No. 74 located at 3700 Pinole Valley Road (PFD, 2004).

City of Richmond Fire Department

The Richmond Fire Department (RFD) provides fire protection and emergency medical response services to the City of Richmond and automatic mutual aid to the cities of El Cerrito, San Pablo, Pinole, and El Sobrante. The RFD provides firefighting and emergency medical services to the incorporated areas of the City and employs 114 sworn and civilian employees assigned to five divisions: Administration, Operations, Fire Prevention, Support Services, and the Office of Emergency Services. The Department's headquarters are located at 330 – 25th Street in Richmond (RFD, 2004).

POLICE PROTECTION

Table 2.M-1 lists police jurisdictions that the Pipeline and Pump Station site are located within.

SCHOOLS

In Contra Costa County, public education for kindergarten through 12th grades 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 education to students.

The Pipeline passes near several schools, listed below in **Table 2.M-2**. The school nearest to the Pipeline is Seaview Elementary School, which is located at 2000 Southwood Drive in unincorporated Contra Costa County.

**TABLE 2.M-1
POLICE PROTECTION JURISDICTIONS**

Agency	Local Address	Jurisdiction	Approximate Staffing Levels
Richmond Police Department (RPD)	401 – 27 th Street Richmond	City of Richmond and sphere of influence	199 officers
Pinole Police Department (Pinole PD)	880 Tennent Avenue Pinole	City of Pinole and sphere of influence	20 officers and personnel
Hercules Police Department (HPD)	111 Civic Drive Hercules	City of Hercules and sphere of influence	20 personnel
Martinez Police Department (MPD)	525 Henrietta Street Martinez	City of Martinez and sphere of influence	25 personnel
Pittsburg Police Department (Pittsburg PD)	65 Civic Avenue Pittsburg	City of Pittsburg and sphere of influence	70 personnel
Military Traffic Management Command	U.S. Naval Weapons Station	Port Chicago	Unknown
California Highway Patrol (CHP)	1501 Blum Street Martinez (Part of Golden Gate Communications Center)	Statewide: traffic law information on freeways; dignitary protection; protection of State property	Unknown
Contra Costa County Sheriff (CCC Sheriff)	651 Pine Street Martinez	Unincorporated Contra Costa County	657 personnel
East Bay Regional Park District Police Department (EBRPDPD)	17930 Lake Chabot Road Castro Valley	1,600 square miles of District parks in Contra Costa and Alameda Counties	62 officers

SOURCES: RPD (2004); Pinole PD (2004); HPD (2004); MPD (2004); Pittsburg PD (2004); CHP (2004); CCC Sheriff (2004); EBRPDPD (2004)

**TABLE 2.M-2
PROJECT VICINITY SCHOOLS**

School	Location	Approximate No. of Students	School District	Approximate Closest Point to Pipeline
Lake Elementary School	2700 – 11th Street San Pablo	456	West Contra Costa Unified School District	0.25 miles
Peres Elementary School	719 – 5th Street Richmond	651	West Contra Costa Unified School District	0.40 miles
Seaview Elementary School	2000 Southwood Dr. San Pablo	290	West Contra Costa Unified School District	0.10 miles
Montalvin Manor Elementary School	300 Christine Drive San Pablo	323	West Contra Costa Unified School District	0.20 miles
Verde Elementary School	907 Giaramita Street Richmond	320	West Contra Costa Unified School District	0.19 miles
John Swett High School	1098 Pomona Street Crockett	700	John Swett Unified School District	0.21 miles
Carquinez Middle School	1098 Pomona Street Crockett	598	John Swett Unified School District	0.21 miles
Garretson Heights School (currently in use for special programs only)	Garretson Avenue Rodeo	Varies	John Swett Unified School District	0.19 miles
St. Patrick School	907 – 7th Street Rodeo	280	Private School	0.17 miles
St. Catherine of Siena School	604 Mellus Street	270	Private School	0.33 miles
St. Peter Martyr School	425 West 4th Street Pittsburg	325	Private School	0.33 miles

SOURCES: Bay Area Private Schools (2004); Ed-Data (2004)

PARKS

The Pipeline passes through and/or is adjacent to the public parks and recreational facilities listed below in **Table 2.M-3**. In addition, **Table 2.M-3** lists public parks and recreational areas that are in the vicinity (within 0.5 miles) of but are not adjacent to or traversed by the Pipeline.

**TABLE 2.M-3
PUBLIC PARKS AND RECREATIONAL FACILITIES ALONG THE PIPELINE**

Park	Location (Jurisdiction)	Size	Pipeline's Location Relative to Park	Recreational Facilities
Bay Point Wetlands	Contra Costa County (near Port Chicago) (EBRPD)	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) (EBRPD)	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) (EBRPD)	10 acres	Adjacent to the southeastern tip	Picnic facilities, open space
Martinez Regional Shoreline Park	Martinez (EBRPD)	344 acres	Adjacent to the southern boundary	Trails, marina, recreational facilities, play fields
Pt. Pinole Regional Shoreline Park	Pinole, Richmond and San Pablo (EBRPD)	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 (EBPRD)	212 acres	Through three unconnected portions of the park	Open space
Shell Marsh	Contra Costa County (EBRPD)	202 acres	Adjacent to the northern boundary	Not open to the public
Wilson Point Regional Park	Contra Costa County (near Pinole) (EBRPD)	Less than 30 acres	Through the southern portion of the park, parallel to Cypress Avenue	Trails, beach
Lefty Gomez Ballfield Complex	Contra Costa County	Less than 20 acres	Adjacent to the western boundary	Playing fields
Montara Bay Park and Community Center	Contra Costa County	Less than 20 acres	Adjacent to the western boundary	Community center, play area

SOURCE: ESA (2004)

**TABLE 2.M-4
PUBLIC PARKS AND RECREATIONAL FACILITIES
IN THE VICINITY OF THE PIPELINE**

Park	Location	Description
Shields Park and Community Center	1410 Kelsey and Gertrude, Richmond <i>(0.10 miles west of pipeline)</i>	Includes community center
North Richmond Ballfield Complex	Filbert Street and Brookside Drive North Richmond, CA <i>(0.40 miles west of pipeline)</i>	Play fields
Parchester Park and Community Center	900 Williams Drive Richmond, CA <i>(0.20 miles east of pipeline)</i>	Includes community center
Montalvin Park	Letitia Road (between Richmond and Pinole] <i>(Less than 0.10 east of pipeline)</i>	Include play fields
Mamie Joseph Park	California Street Rodeo, CA <i>(0.10 miles east of the pipeline)</i>	Small recreational park
Rithet Park	Between Loring Avenue and Winslow Street Crockett, CA <i>(0.005 miles south of pipeline)</i>	Small recreational park
Alexander Park	Pomona Street Crockett, CA <i>(0.10 miles south of pipeline)</i>	Includes a pool and community center
Campfire Girls Park	Winslow Street Crockett, CA <i>(0.005 miles south of pipeline)</i>	Small recreational park
Willow Cove School Park	Hanlon Way Bay Point, CA <i>(0.20 miles south of pipeline)</i>	Linear park
DeAnza Park	Trident Drive Bay Point, CA <i>(0.20 miles south of pipeline)</i>	Small recreational park
California Seasons Park	Seasons Way Bay Point, CA <i>(0.005 miles southeast of pipeline)</i>	Small recreational park

SOURCE: ESA (2004)

For a discussion regarding the East Bay Regional Park District, the Contra Costa County Public Works Department, and the San Francisco Bay Trail as they relate to recreation in the project area, refer to Section 2.N, Recreation. **Figure 2.M-1** shows the proposed Bay Trail alignment within the vicinity of the 5,500-foot replacement pipeline segment.

PUBLIC SERVICES IMPACTS DISCUSSION

- a) **Fire and Emergency Medical Response.** The Pipeline would not require additional fire protection services. 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. Operation of the Pipeline would not require the expansion of fire protection facilities or construction of new fire protection facilities.

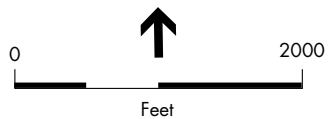
Police. The Pipeline would not require additional police protection. The Pipeline is underground and therefore, it is unlikely that the Pipeline would be subject to any significant vandalism occurrences that would require action from local police departments. Operation of the Pipeline would not require the expansion of police protection facilities or construction of new police protection facilities.

Schools. The Pipeline passes near several existing schools, the closest of which is Seaview Elementary School, located in unincorporated Contra Costa County, within the City of Pinole's sphere of influence. Seaview Elementary School is a year-round school with approximately 290 students in kindergarten through 6th grades (Ed-Data, 2004). However, the Pipeline is within the Union Pacific Railroad right-of-way and is set back from the school by approximately 500 feet. The safety of the Pipeline is addressed in Section 2.G, *Hazards and Hazardous Materials*.

Operation of the Pipeline would not require the construction of a new or expanded school. Most employees that would be hired as a result of the acquisition and future operation of the Pipeline would most likely already live in the Bay Area and, therefore, a new school would not be required for school-age children of potential new employees.

Parks. Temporary alteration of parks, recreation areas, or designated open space areas due to the project (i.e., construction of the 5,500-foot replacement pipeline segment) would not likely constitute a substantial adverse physical impact to the provision of or need for new or physically altered public parks. Nevertheless, implementation of mitigation measures specified below would lessen the potential impacts of temporary alterations to public parks, recreation areas, and open space areas to a less than significant level.

Impact 2.M-1: Operation of the Pipeline may require maintenance in public parks, recreation areas, or designated open space areas, which may result in temporary impacts to public parks. In addition, construction activities associated with the 5,500-foot replacement segment of the Pipeline could result in temporary adverse impacts to the Martinez Regional Shoreline and portions of the Bay Trail within the Martinez



- Proposed Bay Trail Alignment
- Proposed 5,500' Replacement Pipeline Route

SOURCE: Environmental Science Associates

PG&E Richmond-to-Pittsburg Pipeline Divestiture (A.00-05-035 and A.00-12-008) / 204015 ■

Figure 2.M-1

Proposed Bay Trail Alignment

Regional Shoreline Park. This would be a less than significant impact with implementation of Mitigation Measures 2.M-1a through 2.M-1e.

Mitigation Measure 2.M-1a: Implement Mitigation Measures 2.A-1a, and 2.A-1b.

Mitigation Measure 2.M-1b: Construction activities associated with the 5,500-foot replacement pipeline segment shall only occur during the weekdays or as otherwise permitted by the City of Martinez and the EBRPD and the SPBPC and/or its contractor(s) shall ensure that the Bay Trail is fully accessible during weekends, as well as any holidays observed by the City of Martinez. SPBPC shall prepare a work plan to implement this and other construction-related measures and shall provide the work plan to CPUC staff for approval prior to the start of construction. Compliance with this measure shall be monitored by the CPUC mitigation monitor.

Mitigation Measure 2.M-1c: SPBPC shall provide signage that alerts bicyclists to walk their bicycles through the construction area. SPBPC shall also provide notices to local residents (properties within 1 mile of the Martinez Regional Shoreline Park). The notices and signage shall include the following details:

- Expected dates of Bay Trail and/or Martinez Regional Shoreline Park disruption.
- Description and map of temporary relocation of park facilities.
- Name and phone numbers of persons to contact at SPBPC, EBRPD, ABAG Bay Trail, and the City of Martinez.

The notices shall be sent to residents and signage posted at least 14 days in advance of any planned construction activities associated with the 5,500-foot replacement pipeline segment. The CPUC mitigation monitor shall verify the posting of signage and notification prior to construction.

Mitigation Measure 2.M-1d: SPBPC and/or its contractor(s) shall ensure that emergency fencing is erected and flagpersons are present when construction work occurs within roadways or when heavy construction equipment is in operation. Compliance with this measure shall be monitored by the CPUC mitigation monitor.

Mitigation Measure 2.M-1e: For all pipeline 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), the EBRPD, the City of Martinez, and the City of Pinole. SPBPC shall ensure 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. SPBPC shall inform the CPUC staff of

such coordination prior to starting such maintenance actions which could disrupt the San Francisco Bay Trail.

Significance After Mitigation: Less than significant.

Other than police, fire, schools, and parks, described above, no other public facilities would be potentially affected by the proposed project.

REFERENCES – Public Services

Association of Bay Area Governments (ABAG), Bay Trail, <http://baytrail.abag.ca.gov/>, accessed September 23, 2004.

Bay Area Private Schools, *On-Line Guide to Bay Area Private Schools*, <http://www.baprivateschools.com>, accessed September 23, 2004.

California Highway Patrol, www.chp.ca.gov, accessed September 23, 2004.

City of Hercules, www.ci.hercules.ca.us/New/Police, accessed September 23, 2004.

City of Hercules, *New Pacific Properties Specific Plan Draft Environmental Impact Report, December, 1999.*

City of Hercules, *New Pacific Properties Specific Plan Environmental Impact Report Comments and Responses, March 6, 2000.*

City of Martinez Police Department (MPD), <http://www.cityofmartinez.org/depts/police/default.asp>, accessed September 23, 2004.

City of Pinole Fire Department (PFD), <http://www.ci.pinole.ca.us/fire/>, accessed September 23, 2004.

City of Pinole Police Department (Pinole PD), <http://www.ci.pinole.ca.us/police/>, accessed September 23, 2004.

City of Pittsburg Police Department (Pittsburg PD), <http://www.ci.pittsburg.ca.us/Pittsburg/Government/Departments/Police/>, accessed September 23, 2004.

City of Richmond Fire Department (RFD), <http://www.ci.richmond.ca.us/fire>, accessed September 23, 2004.

City of Richmond Police Department (RPD), <http://www.rpdonline.net/main/home.htm>, accessed September 23, 2004.

Contra Costa County Sheriff (CCC Sheriff), <http://www.cocosheriff.org>, accessed September 23, 2004.

East Bay Regional Park District Police Department (EBRPDPD),
<http://www.ebparks.org/Police/about.htm>, accessed September 23, 2004.

Ed-Data, <http://www.ed-data.k12.ca.us>, accessed September 23, 2004.

Olsen, Brad, Environmental Programs Manager, East Bay Regional Park District, personal communication, October 12, 2004.

Pacific Gas and Electric Company, *Supplement to 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*, May 2004.

Rodeo-Hercules Fire Protection District (RHFPD), <http://www.rhfd.org/>, accessed September 23, 2004.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
N. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Please see Section 2.M., *Public Services*, for a description of parks and recreational areas adjacent to the Pipeline or through which the Pipeline passes. The City of Richmond oversees 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.

See **Tables 2.M-2** and **2.M-3** in Section 2.M, *Public Services* for a list of public parks and recreational facilities that are adjacent to or within the general vicinity of the Pipeline.

East Bay Regional Park District

Alameda and Contra Costa counties encompass 1,745 square miles on the eastern side of San Francisco Bay. The East Bay Regional Park District (EBRPD) manages over 95,000 acres of parkland, including 65 regional parks, recreation areas, wilderness, shorelines, preserves, and land bank areas; 29 regional inter-park trails; 1,150 miles of trails within parklands; 11 freshwater swimming areas, boating and/or stocked fishing lakes and lagoons, and a disabled-accessible swimming pool; 40 fishing docks; 3 bay fishing piers; 235 family campsites; 42 youth camping areas; 2 golf courses; 2,082 family picnic tables; 1,707 reservable group picnic tables; 9 interpretive and education centers; 18 children’s play areas; and wedding, meeting, and banquet facilities. Ninety percent of EBRPD lands are protected and operated as natural parklands.

Contra Costa County Public Works Department

The Contra Costa County Public Works Department (CCCPW) is responsible for the administration and maintenance of 18 county parks including the MonTaraBay Community Center and Ballfield Complex and Lefty Gomez Recreation Building and Ballfield Complex, which are located adjacent to the Pipeline route (CCCPW, 2004).

San Francisco Bay Trail

The Bay Trail is a planned recreational corridor that, when complete, will encircle San Francisco and San Pablo Bays with a continuous 400-mile network of bicycling and hiking trails. It is planned to connect the shoreline of all nine Bay Area counties, link 47 cities, and cross the major toll bridges in the region. To date, approximately 240 miles of the alignment—over half the Bay Trail’s ultimate length—have been completed (ABAG, 2004). **Figure 2.M-1** shows the location of existing and under construction segments of the Bay Trail in relationship to the proposed location of the 5,500-foot replacement pipeline segment in the city of Martinez. There is a portion of the Bay Trail that is currently under construction through the Martinez Regional Shoreline Park; this portion of the Bay Trail will be 12 feet wide with 2 foot shoulders on either side when completed (Olsen, 2004).

RECREATION IMPACTS DISCUSSION

- a, b) This section addresses recreation impacts that would be associated with an increased use of existing recreational facilities and/or inclusion of recreational facilities as part of the proposed project. The proposed project would not increase the use of existing recreational facilities nor would it include recreational facilities or require the construction or expansion of recreational facilities. Section 2.M, *Public Services* identifies potentially significant impacts to parks and recreational facilities that could result from construction of the 5,500-foot replacement pipeline segment and from periodic maintenance of the Pipeline as well as mitigation measures to reduce the impacts to a less than significant level.

REFERENCES – Recreation

Contra Costa County Public Works Department (CCCPW), <http://www.co.contra-costa.ca.us/depart/pw/>, accessed September 23, 2004.

Olsen, Brad, Environmental Programs Manager, East Bay Regional Park District, personal communication, October 12, 2004.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
O. 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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

The Pipeline generally traverses the Union Pacific Railroad (UPRR) right-of-way between Chevron's Richmond Refinery and the Mirant Pittsburg Power 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. According to the State Department of

Transportation (Caltrans), the average daily traffic volume on I-80 at the Carquinez Bridge is approximately 128,000 vehicles per day (vpd), with peak-hour traffic averaging 8,500 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 on-ramp/off-ramp in Martinez. According to Caltrans, average daily traffic at this interchange is about 117,000 vpd, with peak-hour traffic averaging 9,100 vehicles.

State Route 4

State Route (SR) 4 is a four-lane freeway extending east from I-80 in Hercules through Contra Costa County. SR 4 runs along the southern perimeter of the Hercules Pump Station property. According to Caltrans, average daily traffic east of I-80 is about 34,500 vpd, increasing to approximately 89,000 vpd west of I-680, with peak-hour traffic averaging 3,300 to 8,500 vehicles, respectively.

ROADS

The existing Pipeline crosses or runs within approximately 26 road rights-of-way (not including the highways mentioned above). Although several of these roads are arterials or collector roads, some are low-speed, low-capacity roadways that only provide circulation within neighborhoods and access to adjacent land. The affected roads are discussed by geographic location below.

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 Mirant Pittsburg Power Plant

Between I-680 and the Mirant Pittsburg Power 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 SR 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 5,500-Foot Replacement Pipeline Segment

The proposed 5,500-foot replacement pipeline segment 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 to the 5,500-foot replacement pipeline segment 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 (northbound) and Berrellessa Street (southbound) operate as a one-way couplet. West of its connection with Escobar Street, Marina Vista (westbound) and

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

Table 2.O-1, below, present's available daily traffic volumes on roadways in the vicinity of the 5,500-foot replacement pipeline segment.

**TABLE 2.O-1
DAILY TRAFFIC VOLUMES ON ROADWAYS IN THE
VICINITY OF THE 5,500-FOOT REPLACEMENT PIPELINE SEGMENT**

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

Two railroad lines carry freight within the Pipeline vicinity. The majority of the Pipeline parallels the UPRR line which is a high-speed double track line between Richmond and Martinez, carrying 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. In addition, daily Amtrak passenger service uses the UPRR rail system.

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 5,500-foot replacement pipeline segment, Alhambra Avenue, Escobar Street and Marina Vista contain Class II bike lanes (striped lanes separate from motor vehicles). Ferry Street contains Class II bike lanes north of the UPRR tracks and Class III bike routes (no striped lane, bicyclists share the road with motor vehicles) south of the UPRR tracks.

In addition, the Bay Trail is available for bicycle use in the Martinez Regional Shoreline Park. **Figure 2.M-1** shows the location of existing and under construction segments of the Bay Trail in relationship to the proposed location of the 5,500-foot replacement pipeline segment in the city of Martinez. There is a portion of the Bay Trail that is currently under construction through the Martinez Regional Shoreline Park; this portion of the Bay Trail will be 12 feet wide when completed (Olsen, 2004).

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 along the eastern shores of San Francisco and San Pablo bays. The Pipeline crosses AC Transit bus routes on public streets in Richmond and El Sobrante.

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 Street 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 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.

In the vicinity of the replacement pipeline project, County Connection routes that extend through downtown include Routes 108, 116, and 118; Route 308 also operates in downtown, but only on Sundays.

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 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 transportation plans or policies relevant to the proposed project.

Contra Costa County

The Contra Costa County General Plan contains the following relevant goals and 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. The following relevant policy is contained in the General Plan:

- 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 5,500-foot replacement pipeline segment 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 related to pipeline replacement installation would consist of the daily arrival and departure of construction workers to the work site; trucks hauling equipment and materials to the work site; and the hauling of excavated spoils from, and import of new fill to, the 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 (approximately 160 cubic feet of excavated materials) 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 as shown on Figures I-3 through I-6, 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 2.O-1: Construction of the 5,500-foot replacement pipeline segment 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 would be a less than significant impact with implementation of Mitigation Measures 2.O-1a and 2.O-1b:

Mitigation Measure 2.O-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 pipeline segment to CPUC. The CPUC mitigation monitor shall monitor compliance with these permits during construction activities.

Mitigation Measure 2.O-1b: Prior to commencing construction activities, the construction contractor shall prepare a traffic control plan in accordance with professional engineering standards. The traffic control plan 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.**
- **Include provisions for temporary alternative dedicated parking spaces when construction activities would prevent access to existing on- and off-site parking.**
- **Cover open trenches subject to vehicular or pedestrian traffic with metal plates capable of accommodating traffic at the end of each work day.**
- **Install traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones.**
- **Install safety fencing where needed, to protect pedestrians from construction areas.**
- **At a minimum, maintain the UPRR safety and engineering guidelines when installing pipeline within the railroad right-of-way. Train construction crews and project personnel on UPRR safety guidelines prior to commencing work in the railroad right-of-way.**
- **Prohibit construction vehicles and equipment from crossing 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. Develop in advance (at least 2 weeks prior to start of construction) the access plans in consultation with the facility administrator. To minimize disruption of emergency vehicle access, the access plans shall inform the facility administrator 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.**

- **Restore all roads disturbed during construction to their preconstruction condition.**

The traffic control plan shall be submitted to CPUC staff, the EBRPD, and the City of Martinez Public Works Department for review and approval. Copies of the approved plan shall be submitted to CPUC.

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 replacement pipeline segment is located within relatively close 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 segment 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 and the 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 not be substantial (0.1 percent increase).

Level of service standards for roadways that are part of a county Congestion Management Program (CMP) 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 2.O-2: Construction-generated traffic could cause a temporary impact to operating conditions or level of service on local roadways. This would be a less than significant impact with implementation of Mitigation Measure 2.O-2.

The hours of construction for the replacement pipeline segment would be limited to Monday through Friday, 7:00 a.m. to 7:00 p.m. or as otherwise permitted by the City of

Martinez and the EBRPD (see **Mitigation Measure 2.K-1**). 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 2.O-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 2.O-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 2.O-1b**.

Mitigation Measure 2.O-2: Implement Mitigation Measures 2.O-1a and 2.O-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 2.O-3: Heavy equipment operating adjacent to or within a road right-of-way could increase the risk of accidents. This would be a less than significant impact with implementation of Mitigation Measure 2.O-3.

As specified under **Mitigation Measure 2.O-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 2.O-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 2.O-1b**. Thus, implementation of **Mitigation Measures 2.O-1a and 2.O-1b** would ensure temporary increases in the potential for accidents would be mitigated to a less than significant level.

Mitigation Measure 2.O-3: Implement Mitigation Measures 2.O-1a and 2.O-1b.

Significance After Mitigation: Less than significant.

- e) As discussed in items a) and b) above, the proposed project would have temporary effects on traffic flow, particularly 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 2.O-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. This would be a less than significant impact with implementation of Mitigation Measure 2.O-4.

As specified under **Mitigation Measure 2.O-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 2.O-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 2.O-1b**. Implementation of **Mitigation Measures 2.O-1a and 2.O-1b** would ensure potential impacts associated with temporary effects on emergency access would be mitigated to a less than significant level.

Mitigation Measure 2.O-4: Implement Mitigation Measures 2.O-1a and 2.O-1b.

Significance After Mitigation: Less than significant.

- f) The proposed project would 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 on- and 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 2.O-5: Construction of the 5,500-foot replacement pipeline segment could temporarily prevent access to on- and off-street parking adjacent to the proposed replacement segment route, including Waterfront Park and Joe DiMaggio Fields. This would be a less than significant impact with implementation of Mitigation Measure 2.O-5.

As specified under **Mitigation Measure 2.O-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 2.O-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 2.O-1b**. Implementation of **Mitigation Measures 2.O-1a and 2.O-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 2.O-5: Implement Mitigation Measures 2.O-1a and 2.O-1b.

Significance After Mitigation: Less than significant.

- g) The proposed project would not have any lasting impact on demand for alternative transportation or on alternative transportation facilities. The County Connection provides bus service within the area of the proposed project, but no bus routes operate on, or cross, the Pipeline alignment. Thus, there would be no impact to bus service as a result of the proposed project.

OPERATION

- a-g) Operation of the proposed project would not change existing transportation facilities nor would it create a substantial increase in new traffic. Occasional maintenance activity along the Pipeline alignment would be required, which would generate a temporary source of traffic. However, this would be infrequent and of limited duration, and therefore, would not result in any long-term traffic impacts.

REFERENCES – Transportation / Traffic

Alameda Contra Costa Transit District, <http://www.actransit.dst.ca.us/>, accessed October 11, 2004.

San Francisco Bay Area Rapid Transit District, <http://www.bart.gov/>, accessed October 11, 2004.

California Department of Transportation,
<http://www.dot.gov/hq/traffops/saferesr/trafdata/2003all.html>, accessed October 11, 2004.

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

City of Martinez, *Martinez General Plan*, 1995

City of Martinez Community Development Department, *Martinez Intermodal Station Project Draft Environmental Impact Report*, 1994.

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

City of Pittsburg, *Pittsburg General Plan*, 2004.

City of Richmond Planning Department, *Richmond General Plan*, 1994.

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

County Connection, <http://www.cccta.org/>, accessed October 11, 2004.

Olsen, Brad, Environmental Programs Manager, East Bay Regional Park District, personal communication, October 12, 2004.

Pacific Gas and Electric Company (PG&E), *Richmond-Antioch Fuel Oil Pipeline Applicant's Environmental Impact Report*, 1974.

Thomas Brothers, *The Thomas Guide: Alameda and Contra Costa County Street Guide and Directory*, 1999.

U.S. Department of Transportation and the City of Martinez, *Martinez Intermodal Station Project Final Environmental Assessment*, 1996.

Union Pacific Railroad, <http://www.uprr.com/>, accessed 2000.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
P. UTILITIES AND SERVICE SYSTEMS –				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Contact and/or disturb underground utility lines and/or facilities during construction activities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SETTING

The Pipeline parallels numerous public utility and service system corridors, including water lines, sewer lines, electric lines, natural gas lines, and telecommunications 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

Water service in Contra Costa County is provided by the East Bay Municipal Utility District (EBMUD) and the Contra Costa Water District (CCWD). EBMUD provides water to the Hercules Pump Station

East Bay Municipal Utility District

EBMUD currently obtains its water from the Mokelumne River watershed. The water passes through Pardee Reservoir, into the Mokelumne aqueduct delivery system and then into the Briones, Chabot, Lafayette, San Pablo, and Upper San Leandro storage/terminal reservoirs. EBMUD also has a contract with the U.S. Bureau of Reclamation to obtain water from the Sacramento River, but facilities have yet to be built because of litigation opposing further diversions from the Sacramento River Delta. EBMUD has water rights and facilities to divert up to a maximum of 325 million gallons per day (mgd) from the Mokelumne River, subject to the availability of Mokelumne River runoff and the prior water rights of other users. EBMUD's position in the hierarchy of Mokelumne River water users is determined by a variety of agreements between Mokelumne River water right holders, the appropriative water rights permits and licenses that have been issued by the state, pre-1914 rights, and riparian rights. Conditions that restrict EBMUD's ability to use its 325 mgd entitlement include:

- upstream water use by prior right holders;
- downstream water use by riparian and senior appropriators and other downstream obligations, including protection of public trust resources;
- drought, or less than normal rainfall for more than a year; and/or
- emergency outage (EBMUD, 2000).

During periods of drought, runoff from the Mokelumne River is insufficient to supply the 325 mgd entitlement. EBMUD's system storage generally allows it to continue serving its customers during dry-year events. EBMUD imposes rationing based on the projected storage at the end of September. By imposing rationing in the early years of potentially long drought periods, EBMUD attempts to minimize rationing in subsequent years if a drought persists while continuing to meet its current and subsequent-year fishery flow release requirements and obligations to downstream agencies. EBMUD's Water Service Regulations, which all customers must comply with, provide for special restrictions on water use during a water shortage emergency.

Contra Costa Water District

CCWD serves approximately 430,000 people throughout north, central, and east Contra Costa County. Its customers also include 10 major industries, 36 smaller industries, and approximately 50 agricultural users. CCWD operates raw water distribution facilities, water treatment plants, and treated water distribution facilities. CCWD's treated water service area encompasses all or part of the cities and communities of Concord, Clayton, Clyde, Pleasant Hill, Walnut Creek, Martinez, and Port Costa. Treated water for this service area is provided from the District's Bollman Water Treatment Plant in Concord. Also, some treated water (under a contract) is delivered to the Southern California Water Company from the Bollman Water Treatment Plant. The Bollman facility has a capacity of 75 million gallons per day (mgd) and uses chlorination for pre-oxidation and intermediate ozonation.

CCWD is almost entirely dependent on the Delta for its water supply. CCWD's primary source of water is the U.S. Bureau of Reclamation's (USBR) Central Valley Project (CVP). CVP water consists of unregulated flows and regulated flows from storage releases from Shasta, Folsom, and Clair Engle reservoirs into the Sacramento River. Other sources include the San Joaquin River and Mallard Slough (CCWD, 2000).

SANITARY SEWER SERVICE

There are eight service districts that manage sanitary sewer service along the Pipeline corridor. Currently, sewage from the Pump Station's control room restroom drains into a 1,200-gallon septic tank. A pump truck service drains the septic tank as needed.

Central Contra Costa Sanitary District

The Central Contra Costa Sanitary District (CCCSD) is an independent local utility that provides wastewater collection and treatment services for about 440,000 residents and businesses in all the cities and unincorporated areas of central Contra Costa County from Martinez to San Ramon. Approximately 45 mgd of treated wastewater is piped from the treatment plant in Concord, north into Suisun Bay daily (CCCSD, 2004).

Crockett-Valona Sanitary District

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.

Delta Diablo Sanitation District

The Delta Diablo Sanitation District (DDSD) was formed in 1976 to protect the health of the public and environment by collecting and effectively treating wastewater in the region. DDSD serves an estimated 184,000 residents and businesses in Antioch, Bay Point, and Pittsburg. In 2002, average dry weather flow into the treatment plant was 13.9 mgd. Treated effluent is discharged into New York Slough, a section of the San Joaquin River (DDSD, 2004).

East Bay Municipal Utility District

EBMUD 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. EBMUD provides secondary treatment for a maximum flow of 168 mgd. Primary treatment can be provided for up to 320 mgd. Storage basins provide

plant capacity for a short-term hydraulic peak of 415 mgd. The average annual flow is currently 80 mgd (EBMUD, 2004).

Mt. View Sanitary District

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 wastewater flow of 1.7 mgd.

West County Wastewater District

The West County Wastewater District (WCWD) 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 treatment plant has the capacity to treat approximately 12.5 mgd; flow is currently at 7.8 mgd (WCWD, 2004).

City of Richmond Public Services Department

The City of Richmond Public Services Department serves the central portion of the city of Richmond. The Department's treatment plant is located in the City of Richmond at 601 Canal Boulevard. The City's wastewater collection system consists of underground pipelines and pump stations which bring wastewater from Richmond residents and businesses to the Water Pollution Control Plant which is operated by US Filter. The treatment plant's dry weather capacity is approximately 12.5 mgd; flow is currently at approximately 6 to 7 mgd. Wet weather flows are currently about 8 to 9 mgd but can be as high as 48 mgd during the rainy season.

City of Pinole Utilities and Services Department

The City of Pinole operates the municipally-owned Pinole-Hercules Treatment Plant, which 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 (City of Pinole Utilities and Services Department, 2004).

ELECTRIC AND NATURAL GAS SERVICE

PG&E provides electric service to residents and businesses in the cities of Hercules, Martinez, Pinole, Pittsburg, Richmond, and the unincorporated areas of Contra Costa County, including to facilities associated with the Pipeline.

CABLE SERVICE

Comcast 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

SBC provides telephone service and access to local and long distance carriers to the all of the jurisdictions crossed by the Pipeline.

GARBAGE AND RECYCLING SERVICE

The following companies provide garbage and/or recycling services to areas through which the Pipeline traverses:

- 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, e) As described in d), below, the primary use of water during operation of the Pipeline would be for the purpose of hydrostatic testing. Once the hydrostatic testing is completed, the water would be drained from the Pipeline and disposed of in accordance with all applicable regulatory laws. The water would either be treated by a refinery connected to the Pipeline and discharged in accordance with that refinery's discharge permits or it would be drained into vacuum trucks or other suitable containers and then transported to a treatment facility and discharged in accordance with that treatment facility's permits (PG&E, 2004a). Because the water used during hydrostatic testing would be re-used for each segment of the Pipeline, the amount of water that would require treatment and disposal required by operation of the Pipeline would be minimal.

Construction activities associated with the 5,500-foot replacement pipeline segment would also require the use of minimal amounts of water, which would require wastewater treatment services. Any water used during the construction period of the replacement pipeline segment in Martinez would be minimal and would not result in a determination by a wastewater treatment provider that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. In addition, the project would not exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board.

- b) As described more fully in d), below, water use and wastewater that would be generated by operation of the Pipeline and during construction of the 5,500-foot replacement pipeline segment would be minimal and therefore, the proposed project would not require or result in the construction of a new or expanded water or wastewater treatment plant facilities.
- c) During construction of the 5,500-foot underground replacement pipeline segment and operation of the Pipeline, no permeable ground would be permanently covered. Since the proposed project would not increase the amount of impervious surfaces, it would not increase runoff nor create additional runoff water. Therefore, the proposed project would not require or result in the construction of a new or expanded storm water drainage facility.
- d) The primary use of water during operation of the Pipeline would be for the purpose of hydrostatic testing. During hydrostatic testing, a segment of Pipeline would be filled with water and then pressurized to 125 percent of its maximum allowable operating pressure. The quantity of water that would be required for hydrostatic testing would equal the volume of the segment of the Pipeline that is being tested (between existing block valves). After a segment is tested, the test water from that segment would then be displaced into the next pipeline segment until the entire length of the Pipeline is tested. Hydrostatic testing of the Pipeline is conservatively estimated to require at the most approximately 551,500 gallons of water.¹ Hydrostatic testing would be performed as necessary to comply with applicable laws and is not anticipated to occur on a regular basis. Water used for hydrostatic testing would normally be purchased from a local water utility, but it can also be purchased from refineries that are connected to the Pipeline (PG&E, 2004a). Because the water used during hydrostatic testing would be re-used for each segment of the Pipeline and because hydrostatic testing would most likely be performed no more than one time per year, the amount of water required by operation of the Pipeline would be minimal.

Construction activities associated with the 5,500-foot replacement pipeline segment would also require the use of minimal amounts of water. Any water used during the construction period of the replacement pipeline segment in Martinez would be available from existing municipal water sources and would not require local water providers to obtain additional water entitlements.

- f, g) Construction activities associated with the 5,500-foot replacement pipeline segment would result in the generation of construction waste material. Existing landfills would have adequate capacity for the disposal of this construction waste. As a result, solid waste-related impacts would be less than significant.

¹ Assuming a 10-mile segment (maximum distance between block valves) of a 16-inch diameter pipeline segment, the approximate quantity of water is estimated to be $[\text{pipeline radius (8 inches = .667 feet)}]^2 \times [\pi (\sim 3.14159)] \times [\text{distance (10 miles = 52,800 feet)}] = 73,707$ cubic feet. Because there are approximately 7.48 gallons per cubic foot of liquid, 73,707 cubic feet = 551,367 gallons. Therefore, 551,367 gallons would be the most water that would be needed for hydrostatic testing since this represents the largest segment of the Pipeline from which water would be moved to the next segment.

- h) Construction activities associated with the 5,500-foot replacement pipeline segment could inadvertently contact underground utility lines and/or facilities during underground construction, possibly leading to short-term utility service interruptions.

Impact 2.P-1: Construction activities associated with the 5,500-foot replacement pipeline segment could inadvertently contact underground utility lines and/or facilities during underground construction, possibly leading to short-term utility service interruptions. In addition, construction workers could be exposed to live, overhead electric lines. This would be a less than significant impact with implementation of Mitigation Measures 2.P-1a and 2.P-1b.

Mitigation Measure 2.P-1a: SPBPC shall ensure that Underground Service Alert is notified at least 14 days prior to initiation of construction of the 5,500-foot replacement pipeline segment. Underground Service Alert verifies the location of all existing underground utilities and alerts the other utilities to mark their facilities in the area of anticipated construction activities. Compliance with this measure shall be verified by the CPUC mitigation monitor.

Mitigation Measure 2.P-1b: Where the replacement pipeline segment crosses or is adjacent to live, overhead electric lines, SPBPC shall install signs warning construction workers of the presence of the line(s). Compliance with this measure shall be verified by the CPUC mitigation monitor.

Significance After Mitigation: Less than significant.

REFERENCES – Utilities and Service Systems

- Central Contra Costa Sanitary District (CCCSD),
<http://www.centalsan.org/aboutcentalsan/whoware.html>, accessed October 8, 2004.
- City of Pinole Utilities and Services Department,
http://www.ci.pinole.ca.us/publicworks/treat_plant.html, accessed October 8, 2004.
- Contra Costa Water District (CCWD), *Contra Costa Water District Urban Water Management Plan*, December 2000.
- Delta Diablo Sanitation District (DDSD), <http://www.ddsd.org/info.html#history>, accessed October 8, 2004.
- East Bay Municipal Utility District (EBMUD), *Urban Water Management Plan*, 2000.
- East Bay Municipal Utility District (EBMUD),
<http://www.ebmud.com/wastewater/treatment/default.htm>, accessed October 8, 2004.
- Pacific Gas and Electric Company, *Supplement to 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*, May 2004.

2. ENVIRONMENTAL CHECKLIST & EXPANDED EXPLANATION

P. UTILITIES AND SERVICE SYSTEMS

Pacific Gas and Electric Company (PG&E), *Response to Completeness Review No. 2, dated July 21, 2004 and the Supplement to Completeness Review No. 2 dated July 26, 2004, A.00-05-035 and A.00-12-008*, August 4, 2004a.

West County Wastewater District, <http://www.wc wd.org/>, accessed October 8, 2004.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Q. 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, substantially 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DISCUSSION OF MANDATORY FINDINGS OF SIGNIFICANCE

The proposed project involves the sale of the Pipeline and Pump Station to SPBPC. SPBPC would operate the Pipeline as a CPUC-regulated utility, and as part of the proposed project, would construct a 5,500-foot replacement pipeline segment in the city of Martinez to be able to fully operate the Pipeline. The Pipeline would be limited to the transport of crude oil, black oils, and refined petroleum products unless SPBPC seeks and gains approval from the CPUC and/or other relevant agencies for other additional uses.

- 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 Initial Study, the proposed project would result in potentially significant temporary impacts associated with the construction of the 5,500-foot replacement pipeline segment that would have the potential to degrade the quality of the environment. However, implementation of mitigation measures described in this Draft MND would reduce these individual impacts to less than significant levels.

As discussed in Section 2.B, *Biological Resources*, the project would 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 substantially reduce the number or restrict the range of a

rare or endangered plant or animal. Section 2.E, *Cultural Resources*, concluded that the project could impact historical or archaeological resources; however, **Mitigation Measures 2.E-1a, 2.E-1b, 2.E-1c, 2.E-2, 2.E-3, and 2.E-4**) would reduce such impacts to a less than significant level.

- b) CEQA Guidelines Section 15130(a) requires a discussion of the cumulative impacts of a project when the cumulative impact is significant and the project's incremental effect is "cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects. The CEQA Guidelines note that the cumulative impacts discussion does not need to provide as much detail as is provided in the analysis of project impacts and should be guided by the standards of practicality and reasonableness.

In addition, CEQA Guidelines Section 15130(b) states that the following three elements are necessary for an adequate cumulative analysis:

- A list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the Lead Agency; or a summary of projections contained in an adopted General Plan or related planning document designed to evaluate regional or area-wide conditions. This information is provided in **Tables 2.Q-1 and 2.Q-2**.
- A summary of expected environmental effects to be produced by those projects. The summary must include specific reference to additional information that states where that information is available.
- A reasonable analysis of the cumulative impacts of the relevant projects and an examination of reasonable options for mitigating or avoiding any significant cumulative effects of a proposed project.

The cumulative projects considered in this analysis are provided in **Tables 2.Q-1 and 2.Q-2**. These projects fall into two categories: [1] projects in the vicinity of the 5,500-foot replacement pipeline segment (because the effects of any cumulative pipeline projects would fall off rapidly with distance, a conservative distance of 1 mile was used for a radius of effect for purposes of this analysis) are identified in **Table 2.Q-1** and [2] other fuel pipeline projects located in the vicinity of the entire Pipeline are identified in **Table 2.Q-2** and Section 2.G, *Hazards and Hazardous Materials*. The construction projects are examined in light of their potential to contribute to short-term, construction-related effects as well as long-term operation effects in conjunction with the proposed project. While the planned fuel pipeline projects in the region may contribute to short-term construction-related effects, they are primarily examined for their possible contribution to long-term operational effects.

**TABLE 2.Q-1
CUMULATIVE PROJECTS WITHIN 1 MILE OF THE 5,500-FOOT REPLACEMENT
PIPELINE SEGMENT**

Project	Address/Location	Description
Wickland Oil Company subdivision	2701 Waterfront Avenue, Martinez	Minor subdivision to divide a parcel into two parcels (72.76 acres and 1.32 acres)
Shell Oil Products Pipeline Pump Replacement	10 Mococo Road, Martinez	Pipeline pump replacement for gasoline pipeline tenders
Shore Terminals fuel storage tank	2801 Waterfront Avenue, Martinez	Construction of a fuel storage tank, measuring 166 ft. in diameter and 58 ft. in height
Mike Cleary Horticultural Facility	2701 Waterfront Road, Martinez	Construction of a new horticultural office, storage, and yard facility

SOURCES: City of Martinez (2004) and ESA (2004)

**TABLE 2.Q-2
REGIONAL CUMULATIVE PIPELINE PROJECTS**

Project	Location	Description
Concord to Sacramento Petroleum Products Pipeline Project	From Concord to West Sacramento (State Lands Commission)	Santa Fe Pacific Partners, LP, an operating partnership of Kinder Morgan Energy Partners, L.P., proposes to construct a 70-mile 20-inch gasoline and jet and diesel fuel pipeline from Concord to West Sacramento
Shore Terminals, LLC, Marine Oil Terminal Lease Renewal	Martinez (State Lands Commission)	A new 20-year lease of California sovereign lands to Shore Terminals, LLC. The lease, if granted, would allow Shore Terminals to continue to operate its marine terminal. Continued operations include oil transfer operations at the marine terminal and vessel transit shipping. Shore Terminals proposes to continue operation of the marine terminal with no expansion or change in use of the existing facility for the duration of the proposed 20-year lease.

SOURCES: California Governor's Office of Planning and Research (2004), Chambers Group (2004), and Aspen Environmental Group (2003)

SHORT-TERM CONSTRUCTION-RELATED EFFECTS

Several short-term construction-related cumulative impacts may occur as a result of construction of the 5,500-foot replacement pipeline segment. These include potential impacts to aesthetics, air quality, cultural resources, hazards and hazardous materials, hydrology and water quality, noise, and transportation impacts. Each impact area is described in further detail below.

Aesthetics

Construction activities associated with the 5,500-foot replacement pipeline segment, as described in Section 1, *Project Description*, could have a temporary impact (i.e., while construction activities are underway on the underground replacement pipeline segment) on scenic vistas and overall visual quality of the area (Martinez Regional Shoreline Park). In conjunction with the other local construction projects in **Table 2.Q-1**, it is possible that these construction activities could contribute to a significant cumulative aesthetic impact. Mitigation measures specified in Section 2.A, *Aesthetics*, which include development and implementation of an aesthetic resources plan during construction would ensure that the project's aesthetic impacts would be less than cumulatively considerable (i.e., because the project will mitigate its fair share of the significant cumulative impact). As a result, the project would not have a significant cumulative aesthetic impact.

Air Quality

Construction activities associated with the 5,500-foot replacement pipeline segment, as described in Section 2.C, *Air Quality*, could have a temporary impact on local air quality through temporary increases in NO_x and PM-10 emissions which could be cumulatively significant when combined with other projects described in **Table 2.Q-1**. **Mitigation Measure 2.C-1** would ensure that the project's temporary air quality construction impacts would be less than cumulatively considerable (i.e., because the project will mitigate its fair share of the significant cumulative impact). As a result, the project would not have a significant cumulative air quality impact.

Cultural Resources

Construction activities associated with the 5,500-foot replacement pipeline segment, as described in Section 2.E, *Cultural Resources*, would have the potential to result in the disturbance of unknown cultural resources. In conjunction with the other local construction projects in **Table 2.Q-1**, it is possible that these construction activities could contribute to a significant cumulative cultural resources impact. It is unlikely, however, that the trenching associated with the construction of the 5,500-foot replacement pipeline segment would uncover a unique cultural resource. Nonetheless, **Mitigation Measure 2.E-1a** would require that SPBPC appoint a cultural resources specialist to conduct archaeological monitoring during construction activities. In addition, in the event that archaeological or historic resources are encountered during construction, **Mitigation**

Measure 2.E-1b would require SPBPC and/or its contractor(s) to immediately stop work within 100 feet of the resource and require the project cultural resource specialist to evaluate such resources for significance per California Register of Historical Resources eligibility criteria (Public Resources Code SS5024.1 Title 14 CCR, Section 4852) and prepare and conduct a data recovery plan, as necessary. It is likely that the other projects identified in Table 2.Q-1 would have similar requirements imposed. Mitigation measures identified in this Draft MND will ensure that the project's cultural resources impacts would be less than cumulatively considerable (i.e., because the project will mitigate its fair share of any significant cumulative impact). As a result, the project would not have a significant cumulative impact to cultural resources.

Hazards and Hazardous Materials

Construction activities associated with the 5,500-foot replacement pipeline segment would require the use of certain materials such as fuels, oils, solvents, and glues that, in large quantities, could pose a potential hazard to the public or the environment if improperly used or inadvertently released. However, the onsite storage, or disposal of large quantities of potentially hazardous materials is not anticipated for project construction activities. In addition, the use of best management practices typically implemented as part of construction would minimize any potential negative cumulative impacts to groundwater and soils. **Mitigation Measures 2.G-1, 2.G-5a and 2.G-5b** require SPBPC and/or its contractor(s) to implement construction best management practices for the replacement segment to address proper storage and handling of chemicals during construction and proper treatment disposal of hazardous soil or groundwater encountered during construction.

In addition, it is likely that other projects would implement the Best Management Practices identified above. Mitigation measures identified in this Draft MND will ensure that the project's hazardous materials impacts would be less than cumulatively considerable (i.e., because the project will mitigate its fair share of any significant cumulative impact). As a result, the project would not have a significant cumulative hazards impact..

Hydrology and Water Quality

During construction of the 5,500-foot replacement pipeline segment, erosion and sedimentation of storm water originating from the construction site could occur. When combined with spills and leaks of oils or petroleum hydrocarbons from construction equipment, impacts to storm water quality could occur. In conjunction with the other local construction projects in **Table 2.Q-1**, it is possible that these construction activities could contribute to a significant cumulative water quality impact. **Mitigation Measure 2.H-2** requires SPBPC to manage erosion and storm water impacts, which would ensure that the project's construction-related water quality impacts would be less than cumulatively considerable (i.e., because the project will mitigate its fair share of any significant

cumulative impact). As a result the project would not have a significant cumulative impact to hydrology and water quality.

Noise

Equipment used during construction of the 5,500-foot replacement pipeline segment would temporarily increase short-term noise levels in the project area. The proposed project, in conjunction with the other projects listed on **Table 2.Q-1** would have the potential to contribute to a cumulative impact of noise levels in the project area. Mitigation measures specified in Section 2.Q, *Noise*, would ensure that the project's construction-related noise impacts would be less than cumulatively considerable (i.e., because the project will mitigate its fair share of the significant cumulative impact). As a result the project would not have a significant cumulative noise impact.

Transportation

Construction activities associated with the 5,500-foot replacement pipeline segment, as described in Section 2.O, *Transportation/Traffic*, could have a temporary construction-related impact on local traffic within Martinez and access to the Martinez Regional Shoreline Park. In conjunction with the other local construction projects in **Table 2.Q-1**, it is possible that these construction-related traffic impacts could contribute to a temporary significant cumulative traffic impact. **Mitigation Measures 2.O-1a and 2.O-1b** would reduce the significant traffic effects associated with the proposed project to a less than cumulatively considerable level (i.e., because the project will mitigate its fair share of the significant cumulative impact). Thus, the project would not have a significant cumulative impact to traffic.

LONG-TERM OPERATIONAL EFFECTS

In conjunction with the proposed project, long-term operational cumulative impacts may occur. The areas of primary potential impact include hazards and hazardous materials and noise.

Hazards and Hazardous Materials

Operation of the Pipeline, in combination with operation of other existing pipelines within one half mile of the proposed SPBPC Pipeline (see Section 2.G, *Hazards and Hazardous Materials*), as well as future cumulative pipeline projects near the SPBPC Pipeline (**Table 2.Q-2**), would result in an overall increase in the probability of accidental spills in the region. These other pipelines are, for CEQA purposes, part of the existing baseline, and they may individually contribute to the potential for accidental spills. Historical information on hazardous liquid pipelines in California indicates that, over a ten year period, the rate of accidental leaks of over 5 barrels from liquid petroleum pipelines has been about 5.3 incidences per 1,000 miles per year (California State Fire Marshal, 1993). Even an accident involving a small spill, such as 5 barrels, may have significant

consequences if it occurs at the point where pipelines cross a watercourse that leads to San Francisco Bay. **Mitigation Measure 2.G-3** requires SPBPC and/or its contractor(s) to install remotely activated block valves on the replacement pipeline segment near Alhambra Creek. This measure would ensure that the project's impacts would be less than cumulatively considerable (i.e., because the project will mitigate its fair share of any significant cumulative impact). These measures are also likely to be imposed on related pipeline projects. In addition, the California Office of the State Fire Marshal has regulatory responsibility for conducting periodic safety inspections of all oil pipelines in California. With this safety oversight regime in place the project would not have a significant cumulative hazards impact from spills.

When returned to operation, the Pipeline would transport petroleum products, some of which could be classified as flammable or may contain acutely toxic components, such as hydrogen sulfide. Accidents that involve these substances could result in public exposure to fire or airborne exposure of acutely hazardous chemicals. In its application, SPBPC has stated that possible petroleum products to be considered would include gasoline, jet fuel, crude oil, black oils, and fuel oil. Gasoline and some jet fuels are classified as flammable. Fires, which are caused by ignition of flammable materials, can result in public exposure to heat radiation. However, the heat from such fires decreases rapidly with distance from the flame. Explosions of flammable mixtures can occur if the flammable mixture is released at high temperatures. For the proposed project, no heat is planned to be transferred to the petroleum products in the Pipeline. At this time, it is unknown whether a product heater would be included in the future configuration of the Pipeline. Without a product heater, there would only be a very slight probability of a pipeline-related explosion. However, if a product heater is included in future configurations of the Pipeline, risk of explosion should be determined in future hazard assessments for the additional equipment added to the Pipeline at that time. **Mitigation Measure 2.G-2** requires that a hazards assessment be performed by SPBPC and reviewed by the CPUC and the State Fire Marshal should a process heater be required for future operations. As a result, the project would not have a significant cumulative hazards impact.

Noise

Operational noise (long-term increases in the ambient noise level) associated with the operation of the Pipeline, as described in Section 2.K, *Noise*, was determined to be less than significant because the Pipeline is primarily underground and because oil pipelines do not create audible sound during operations. Likewise, the other cumulative pipeline projects identified in **Table 2.Q-2** and Section 2.G, *Hazards and Hazardous Materials* are unlikely to increase the ambient noise level in the vicinity of this project. The cumulative impact of long-term noise levels is therefore determined to be less than significant.

- 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. As discussed in

b) above, some of the possible petroleum products which may be transported by the pipeline are classified as flammable. Fires, which are caused by ignition of flammable materials, can result in exposure to heat. For the proposed project, no heat is planned to be transferred to the petroleum products in the Pipeline but SPBPC may in the future add a product heater to the future configuration of the Pipeline. Without a product heater, there would only be a very slight probability of a pipeline-related explosion. However, if a product heater is included in future configurations of the Pipeline, risk of explosion should be determined in future hazard assessments for the additional equipment added to the Pipeline at that time. **Mitigation Measure 2.G-2** requires that a hazards assessment be performed by SPBPC and reviewed by the CPUC and the State Fire Marshal should a process heater be required for future operations. As a result, the project would not have a significant cumulative hazards impact. Therefore, the project's potential to cause adverse effects on humans is related largely to the accidental spills that could result if the Pipeline ruptured.

If the project is approved, SPBPC intends to construct the missing 5,500-foot pipeline segment in Martinez and operate the Pipeline in accordance with established laws, ordinances, regulations, and standards applicable to the construction and operation of oil pipelines. Prior to installing the 5,500-foot replacement pipeline segment in Martinez, SPBPC would conduct geotechnical studies and design the project to applicable standards to prevent ruptures during earthquakes. SPBPC would conduct periodic safety inspections of the Pipeline under the supervision of the California Office of the State Fire Marshal.

The proposed project could include some potential to affect human health because of temporary air quality effects during construction of the 5,500-foot replacement pipeline segment; but **Mitigation Measure 2.C-1** imposed in Section 2.C, *Air Quality* would reduce this potential to a less than significant level.

REFERENCES – Mandatory Findings of Significance

Aspen Environmental Group, *Concord to Sacramento Petroleum Products Pipeline Project Draft Environmental Impact Report*, June 2003.

California Governor's Office of Planning and Research, State Clearinghouse, *CEQAnet Database*, <http://www.ceqanet.ca.gov/>, accessed October 19, 2004.

California State Fire Marshal, *Hazardous Liquid Pipeline Risk Assessment*, March 1993.

Chambers Group, *Shore Terminals, LLC, Marine Oil Terminal Lease Renewal Draft Environmental Impact Report*, May 18, 2004.

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