4.9 LAND USE AND PLANNING

This Section addresses the environmental setting, impacts and mitigation measures for the proposed Project related to land use and planning. Included are descriptions of the environmental setting in terms of existing land uses that could be affected by the proposed alignment. Federal, State, and local plans that could affect the Project construction and operation are also discussed.

4.9.1 Environmental Setting

This Section presents information on existing land uses along the proposed pipeline alignment. It identifies sensitive land uses such as schools, residential, biological preserves, and recreation and open space areas adjacent to and near the proposed alignment. The land use inventory was conducted by examining and verifying data provided by PG&E, aerial photographs, and field reconnaissance. The study area boundary includes lands within the pipeline right-of-way (ROW) and lands beyond the ROW that could be affected by construction or operational activities.

The study area width for sensitive land uses extends from the alignment itself approximately 660 feet on either side of the proposed pipeline. Areas at risk of pipeline releases are known as High Consequence Areas (HCAs). Federal DOT regulations define area classifications, based on population density of the pipeline vicinity and on an area that extends for 660 feet (220 yards) on either side of the centerline of any continuous one-mile length of the pipeline. The class locations along the proposed pipeline route are shown in Figure 2-7.

The risk analysis performed for the proposed project is located in Section 4.7, Hazards and Hazardous Materials. School districts require a 1,500-foot distance for hazardous land uses near school sites, per Title 5, section 14010, of the California Code of Regulations - Standards for School Site Selection. Two planned school sites within the Placer Vineyards Specific Plan area (an HCA) are located within 1,500 feet of the proposed Project pipeline along Base Line Road. Alternative Options I, J, K, and L were included in this Draft EIR to address the planned school sites.

Existing Land Use Types. The proposed pipeline alignment traverses lands in Sutter County, Yolo County, Sacramento County, Placer County, and is within the Sphere of Influence of the City of Roseville. The area along the proposed alignment passes through predominantly agricultural or undeveloped areas. Existing land use reported below generally reflects those uses within a 0.5 mile of the proposed
Table 4.9-1: Existing Land Uses and General Plan Land Use Designations along the Proposed Project Alignment

<table>
<thead>
<tr>
<th>Route Segment</th>
<th>County</th>
<th>Existing Land Use</th>
<th>Designated Land Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>From tie-in to Lines 400 and 401 to Dunnigan Hills</td>
<td>Yolo</td>
<td>Cultivated Agricultural Lands (Disced, Fallow, Row Crop, Orchard, Pasture)</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Dunnigan Hills</td>
<td>Yolo</td>
<td>Cultivated Agricultural Lands Range Land Residential</td>
<td>Agriculture Very Low Density Residential</td>
</tr>
<tr>
<td>Dunnigan Hills</td>
<td>Yolo</td>
<td>Cultivated Agricultural Lands Residential</td>
<td>Very Low Density Residential</td>
</tr>
<tr>
<td>Interstate 5 to the tie-in with Line 172A</td>
<td>Yolo</td>
<td>Cultivated Agricultural Lands Residential</td>
<td>Industrial</td>
</tr>
<tr>
<td>Lines 406 and 172A tie-in point to Sacramento River</td>
<td>Yolo</td>
<td>Cultivated Agricultural Lands Orchards Residential</td>
<td>Industrial</td>
</tr>
<tr>
<td>Yolo/Sutter County boundary at Sacramento River to Powerline Road</td>
<td>Sutter</td>
<td>Habitat Preserve Zones (Natomas Basin Conservancy Mitigation Lands) Orchards</td>
<td>Industrial</td>
</tr>
<tr>
<td>From Intersection of Powerline Road and Riego Road south to Elverta Road (the Distribution Feeder Main (DFM))</td>
<td>Sutter and Sacramento</td>
<td>Agriculture (primarily rice fields)</td>
<td>Industrial</td>
</tr>
<tr>
<td>Intersection of Powerline Road and Riego Road to Steelhead Creek</td>
<td>Sutter</td>
<td>Agriculture (primarily rice fields and pasture) Industrial</td>
<td>Industrial (Sutter Pointe Specific Plan area)</td>
</tr>
<tr>
<td>Route Segment</td>
<td>County</td>
<td>Existing Land Use</td>
<td>Designated Land Use</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>--------------</td>
<td>-------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Steelhead Creek to Sutter/Placer County boundary</td>
<td>Sutter</td>
<td>Agriculture (mainly pasture)</td>
<td>Industrial Low Density Residential</td>
</tr>
<tr>
<td>Sutter/Placer County boundary to Line 123 Tie-in</td>
<td>Placer</td>
<td>Agriculture (primarily grazing land)</td>
<td>Urban Reserve&lt;br&gt;Very Low Density Residential&lt;br&gt;Low Density Residential&lt;br&gt;(South side of Base Line Road - adopted Placer Vineyards Specific Plan area)&lt;br&gt;(North side of Base Line Road - Curry Creek Community Plan area and Sierra Vista Specific Plan area)</td>
</tr>
</tbody>
</table>

Source: PG&E 2007; California Resources Agency.

Existing land uses include the following definitions (PG&E 2007):

- Range Land: These areas are mostly hilly or sloping terrain with little or no discing (except for firebreaks). They include some oak woodland areas and open rangeland.

- Orchards: These consist primarily of nut tree orchards (almond or walnut), but also include some fruit and olive orchards.

- Disced, Fallow, Row Crop, or Improved Pasture: These are areas that show some improvements, such as evidence of complete or partial leveling, discing, or use for row plants. Some of these fields have been used for row crops (tomatoes, squash, sunflowers, asparagus, or other crop) while others have been used for fodder production (hay or alfalfa).

- Urban, Residential, Commercial, or Industrial: Developed areas include the portions of the Project area characterized by buildings, roads, equipment storage areas, and the surrounding areas with horticultural vegetation. Where these areas are large enough, these properties are mapped separately from the surrounding land use.
Land Uses along Line 406

Line 406 is located entirely in north-central Yolo County and extends from the existing Lines 400 and 401 to the existing Line 172A for approximately 14 miles through unincorporated areas of Yolo County. This area is generally used for agricultural production. See Figure 4.9-1A for land uses along the proposed Project.

Disced, fallow, row crop, or improved pastures dominate the mostly flat alignment areas from the tie-in with Lines 400 and 401 to the Dunnigan Hills, where the land use becomes predominately grazing land. Seasonal wetlands and creek crossings are also found in the Dunnigan Hills area. The Line 406 Project area continues as primarily agricultural from east of the Dunnigan Hills to Interstate (I) 5. Orchards are found on the Project alignment between I-5 and the tie-in with Line 172A. In addition, developed land uses, such as rural residential and farm buildings, dot the landscape along the Line 406 alignment, as shown on Figure 4.9-1A.

Agricultural lands, which include lands that are currently plowed, used for row crops or improved pasture, or are currently fallow, make up 56.2 percent of the existing land uses along the Line 406 Project alignment. Of the rest of the Line 406 Project area, 36.3 percent is grazing land, 4.2 percent is orchards, and 3.3 percent is urban. Additional detail on adjacent land uses may be found in Figure 2-3.

Land Uses along Line 407

Line 407 West extends from the western terminus at Lines 406 and 172A in Yolo County to the junction of Riego Road and Powerline Road, approximately 1 mile east of the Sacramento River in Sutter County. West of the Sacramento River, the majority of the route follows existing roads with the exception of approximately 2.5 miles of the route length. From the tie-in points with Lines 406 and 172A, the alignment runs south and then east through agricultural fields until it reaches County Road (CR) 17. The Line 407 West pipeline alignment then follows CR-17 eastward through mixed row crops and orchards, crossing State Route (SR) 113 and small patches of oak woodland until it reaches the Knights Landing Ridge Cut. From there, the Project route heads northeast and follows an existing electric utility corridor for 2 miles. It then turns east across the Yolo Bypass to CR-16 and follows CR-16 east through the Sacramento River Ranch Conservation Bank lands and walnut orchards to the Sacramento River crossing site, near the junction of CR-16 and CR-117. See Figures 4.9-1B and 4.9-1C for land uses along the proposed Project. Additional detail on adjacent land uses may be found in Figure 2-4 and 2-5.
The Line 407 West Project area consists predominantly of agricultural land use. Row crops, irrigated pasture, orchards, and a few rice fields span a majority of the Project area west of the Sacramento River in the Line 407 West Project area. Orchards are found on the Project alignment between the tie-in points with Lines 406 and 172A and the Sacramento River. The west side of the Sacramento River crossing location is within a walnut orchard. The east side of the river crossing is within a row crop field inside the river levee at the junction of Riego Road and Garden Highway. On the east side of the Sacramento River, the Project alignment follows Riego Road through the Natomas Basin Habitat Conservation Plan (NBHCP) area and past the Huffman East, Huffman West, Vestal, and Atkinson conservation tracts to the junction of Riego Road and Powerline Road.

The eastern end of the Project area is experiencing rapid growth, and new development projects are planned in the vicinity of the Line 407 East and Powerline Road Distribution Feeder Main (DFM) Project areas within Sutter, Sacramento, and Placer counties. Many of the new development projects are in the early planning and construction phases, and the area between the Sacramento River and the Roseville city limits is set for major expansion over the next 10 to 20 years. Residential, commercial, and industrial development will cover much of the Project area where land is currently limited to agricultural use (primarily rice fields and grazing land) and non-native annual grasslands, with some inclusive seasonal pool and vernal pool wetlands, as well as rural residential development.

The Line 407 East alignment follows Baseline Road and Riego Road east of the Sacramento River and terminates at the intersection of Baseline Road and Fiddyment Road. Just east of the NBHCP conservation tracts, the route passes by two major approved development areas, the Sutter Pointe Specific Plan area in Sutter County and the Placer Vineyards Development area in Placer County. The Sutter Pointe Specific Plan area, which will be developed under Sutter County’s Measure M, is currently being used for rice fields.

Crossing into Placer County, the Project alignment follows the northern border of the approved Placer Vineyards Development area for approximately 6 miles, just short of the tie-in with Line 123. The area just west of the Sutter/Placer county line near Pleasant Grove Road consists mostly of rural residential and agricultural parcels ranging in size from 1 to 96 acres. Land use in the remainder of the Placer Vineyards Development area, directly south of the Project area, consists of agricultural lands (primarily rice fields). North of the Project alignment, large portions of land are being considered for development (Curry Creek Community Plan), but
are currently used for agriculture, and are primarily undeveloped grazing-land. Annual grasslands and vernal pool habitat are also found within this area. There is some low-density residential and commercial use at the intersection of Baseline Road and Fiddyment Road. Recent housing developments have been constructed along the northeastern corner of this intersection, which marks the border of the City of Roseville. The Project alignment also crosses the easement for the Western Area Power Administration’s (WAPA) Olinda-Tracy 500 kV, Obanion-Elverta 230 kV, Cottonwood-Roseville 230 kV, and Roseville-Elverta/Roseville-Fiddyment 230 kV transmission lines. Additional detail on adjacent land uses may be found in Figure 2-5.

The Powerline Road DFM, which will be constructed concurrently with Line 407 East, extends 2.5 miles south from Powerline Road to Elverta Road at the proposed Sacramento Metro Air Park development. This route currently consists primarily of rice fields. Additional detail on adjacent land uses may be found in Figure 2-6.

4.9.2 Regulatory Setting

Federal, State, and local regulations are described in this section. A policy consistency analysis is found in Section 4.9.5, Impact Analysis and Mitigation Measures.

Federal

There are several Federal agencies with jurisdiction over the lands in the ROW for the proposed alignment. The U.S. Department of Transportation (DOT) regulates technical performance of oil and gas pipelines. The standards in the Federal regulations are more stringent for pipelines placed near high human population densities. Federal DOT regulations define area classifications, based on population density of the pipeline vicinity and on an area that extends for 660 feet (220 yards) on either side of the centerline of any continuous one-mile length of the pipeline. Class designations representing more populated areas require higher safety factors in pipeline design, testing, and operation. In addition to population density, other factors are used to determine the design factor used within a class designation. A higher safety factor must be used in the design formula for steel pipelines that: (a) cross, without a casing, the ROW of an unimproved public road; or (b) cross without a casing, or makes a parallel encroachment on the ROW of a hard-surfaced road, a highway, a public street, or a railroad. The design specifications for each of the pipeline area classes included as part of the Project are provided in Section 2.0,
Project Description, Table 2-2. Section 2.0, Project Description, Figure 2-7 illustrates the pipeline area classifications along the proposed route.

The U.S. Environmental Protection Agency (EPA) regulates spill responses. The U.S. Army Corps of Engineers (USACE) regulates discharges into waters of the United States.

**State**

The California Public Utilities Commission (CPUC) has exclusive jurisdiction over the design, location, construction, and operation of gas transmission facilities operated by investor-owned public utilities.

The proposed alignment crosses four counties: Yolo, Sutter, Sacramento, and Placer, and is adjacent to the City of Roseville. Applicable information from land use plans and zoning ordinance for the counties and city are presented below.

**Local**

**Yolo County**

The Yolo County General Plan states that all utilities are permitted without obtaining a use permit or site plan approval. The routes of all proposed utility transmission lines are to be submitted to the County for recommendation prior to the acquisition of ROW. No applicable zoning code provisions for a natural gas pipeline were found.

Recreational activities within Yolo County include community parks, State recreation areas and historic parks, lakes, wine tasting, golf, river rafting, boating, and swimming. Yolo County owns and maintains 11 parks and recreation facilities throughout the County, and none are located directly within the Project area. The Esparto Community Park is the closest park to the Project area at approximately 2.5 miles south of Line 406 in the community of Esparto. Recreational activities that may take place in the vicinity of the Project area in Yolo County mainly consist of water sports or leisure activities along Cache Creek and the Sacramento River. Cache Creek lies south of Lines 406 and 407. At the east end of Line 406, the creek is between 1.5 and 3 miles south of the Project. Near Line 407-W, the creek runs within 0.25 mile of some portions of the proposed alignment, most notably near the intersection of SR-113 and CR-17.

A portion of the eastern end of Line 407 West is adjacent to the Gray’s Bend area of the Sacramento River. The line then continues east and passes under the...
Sacramento River. There are no boat-launching facilities or public beaches on the
Yolo County side of the Sacramento River in these areas; however, boats, kayaks,
or river rafts launched from other parts of the river may be present at any given time.

The River Ranch Conservation Bank, managed by Wildlands Inc., is a 76-acre
mitigation bank west of the Sacramento River and on both sides of CR-16 in Yolo
County. It provides permanent habitat for the endangered valley elderberry longhorn
beetle (VELB). The bank is within a 3,682-acre property owned by the Sacramento
River Ranch LLC. The bank sells conservation credits for the loss of valley
elderberry longhorn beetle habitat within the primary service area, which includes all
of Sutter, most of Sacramento, and smaller portions of Yolo and Placer counties.
Wildlands plans to open two additional portions of the River Ranch valley elderberry
longhorn beetle conservation bank, encompassing an additional 95 acres. A portion
of Line 407 West runs through the River Ranch Conservation Bank. See Figures
4.9-1A, 4.9-1B, and 4.9-1C for land uses along the proposed Project.

Sutter County

The land use policies in the Sutter County General Plan are implemented through
zoning, specific plans, or other planning tools that impose specific development
standards on proposed land uses. A review of the Sutter County General Plan did
not identify any policies that relate to natural gas pipelines. No applicable zoning
provisions for natural gas pipelines were found.

The main recreational activities offered in the Sutter County portion of the Project
area are centered around the Sacramento River. Lines 407 West and 407 East
cross approximately 6 miles of unincorporated Sutter County. There are no public,
community parks or other recreational facilities within 0.5 mile of the Project area.
Recreational activities near the Project area are limited to the vicinity of the
Sacramento River crossing. The Rio Ramaza Marina is a private marina on an
approximate 0.35-mile stretch of the Sacramento River, which is open to public
access. This marina offers activities such as fishing, swimming, camping, and
boating, and is located approximately 3.4 miles to the south of the proposed
alignment crossing/HDD location on the Sacramento River.

The Natomas Basin Habitat Conservation Plan (NBHCP)

The NBHCP covers approximately 53,537 acres of land in northern Sacramento
County and southern Sutter County that have historically been utilized for
agriculture. The Natomas Basin is bound by Cross Canal on the northwest corner,
The purpose of the NBHCP is to promote biological conservation in conjunction with economic and urban development within the permit areas. The NBHCP establishes a multi-species conservation program to minimize and mitigate expected take of covered species that could result from development, including giant garter snake and Swainson’s hawk. The NBHCP requires mitigation for designated types of development within the NBHCP area boundaries, which are in Sacramento and Sutter counties, including public and private utilities. Compliance includes the requirements for land and/or fee dedication as well as the application of measures to avoid, minimize, and mitigate the take of species covered by the NBHCP. See Figures 4.9-1A, 4.9-1B, and 4.9-1C for land uses along the proposed Project.

The Yuba-Sutter Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP)

The NCCP HCP is in the planning process and the proposed Project is outside of the current plan area boundaries. However, the initial plan area boundary was established during the process of completing the Biological Opinion for the SR-99/SR-70 Upgrade Project in 2003. That process was intended to set the plan area boundary as the area that encompassed SR-99/SR-70 Upgrade Project-related cumulative effects to federally-listed species. The counties, therefore, have been pursuing a conservation plan area boundary that would consider species conservation in a broader context, extend the usefulness of the planning effort and resultant permit streamlining to address both federally and state-listed species, and address the requirements of the California Natural Community Conservation Planning Act as well as the Federal Endangered Species Act. Sutter County staff has recommended that the boundary of the Yuba-Sutter NCCP/HCP be extended to incorporate the area between the eastern boundary of the NBHCP and the Sutter-Placer county line where Line 407 East crosses Pleasant Grove Road.
Sacramento County

A review of the Sacramento County General Plan identified the following policy that relates to natural gas pipelines lines.

Policy PF-118: Route new high-pressure gas mains within railway and electric transmission corridors, and along collector roads, and wherever possible, within existing easements. If not feasible these gas mains shall be placed as close to the easement as possible.

No applicable zoning code provisions for natural gas pipelines were found for Sacramento County.

There are no recreational areas in Sacramento County within 0.5 mile of the Line 407 East Project area. See Figures 4.9-1A, 4.9-1B, and 4.9-1C for land uses along the proposed Project.

Placer County

The Placer County General Plan requires that utilities be designed to minimize visual impact by following the natural terrain and installing them underground. The County also requires that roadway ROW be wide enough to accommodate the travel lanes needed to carry planned utilities. The Placer County Zoning Code (section 17.06.050) indicates that pipelines and transmission lines are an allowable use in all zoning districts without a permit.

Line 407 East extends approximately 6.5 miles into the southwestern corner of Placer County. Doyle Ranch Park is the closest recreational facility to the Project area at approximately 0.85 mile south of Baseline Road. Existing and proposed bikeways are immediately adjacent to the Line 407 East Project area. The City of Roseville has designated Baseline Road and Fiddyment Road as Class II bikeways, i.e., on-road bikeways. These roads mark the boundary of the City’s western limits and the termination of Line 407 East. Junction Boulevard, approximately 0.3 mile east of the Project, has been proposed as a bikeway by the City of Roseville. See Figures 4.9-1A, 4.9-1B, and 4.9-1C for land uses along the proposed Project.

Placer County Conservation Plan

In 2000, the Placer County Board of Supervisors directed staff to initiate the implementation of the Placer Legacy Program. As part of that direction, staff initiated the preparation of an NCCP and HCP to comply with the State and Federal...
Endangered Species Act and the Federal Clean Water Act related to wetlands. That effort, now referred to as the Placer County Conservation Plan, is intended to address the impacts associated primarily with unincorporated growth in western Placer County.

Conservation planning within Placer County is progressing in phases. The first phase is the development of a plan for the western portion of the County. The draft plan (February 2005) specifies techniques for minimizing impacts to wetlands and aquatic ecosystems when constructing utility lines.

City of Roseville General Plan and Sphere of Influence

The eastern terminus of the proposed Project passes through the City of Roseville Sphere of Influence. The Sphere of Influence represents a plan for the probable physical boundary of the City. The City does not control land use activities in this area, but is considered an affected agency for any action to change the municipal service providers to the area. As an affected agency, the City may comment or oppose any changes to service delivery within the area. The City’s input would have great weight on the decision of the Local Agency Formation Commission.

4.9.3 Significance Criteria

An adverse impact on land use and planning was considered significant and would require mitigation if Project construction or operation would:

1. Conflict with adopted land use plans, policies or ordinances established by a jurisdiction directly affected by the Project;

2. Result in conflicts with planning efforts to protect the recreational resources of an area;

3. Conflict with or result in incompatible adjacent land uses, including any approved residential or commercial development plans or any applicable habitat conservation plan or natural community conservation plan; or

4. Physically divide a community.

4.9.4 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been identified by PG&E that are relevant to this Section.
4.9.5 Impact Analysis and Mitigation

Impact Discussion

Land Use Plans, Policies or Ordinances

Designated Land Uses are displayed in Table 4.9-1, and Figures 4.9-1A, 4.9-1B, and 4.9-1C depict land uses along the proposed Project. Utility lines are not prohibited in any of these land use designations. Sutter County does not have any policies pertaining to locations of natural gas pipelines. Sacramento County’s General Plan indicated that gas mains should be located in utility corridors or along collector roads. Placer County’s General Plan indicates that gas lines should be installed underground. Yolo County’s General Plan indicates that all utilities are permitted without obtaining a use permit or site plan approval. The Project does not conflict with any of these plans. Therefore, impacts would be less than significant (Class III).

Conversion of Agricultural Land or Conflict with Williamson Act Contract

The Project would not create conflict with agricultural policies in Yolo, Placer, Sutter, and Sacramento counties designed to preserve agricultural lands. For a detailed discussion on potential impacts to agricultural resources, refer to Section 4.2, Agricultural Resources.

All Williamson Act lands disturbed by construction activities would be returned to prior status as agreed upon with the landowner with the exception of certain areas where permanent aboveground stations would be constructed in Williamson Act tracts.

The amount of farmland that would be permanently converted to non-agricultural use by the construction of the six stations is 2.55 acres. The project would also result in the permanent conversion of approximately 3.1 acres of existing orchards (because of restrictions related to replanting of trees and other deep-rooted plants) to other agricultural practices. The amount of farmland permanently impacted (2.55 acres) and the amount of farmland converted from deep rooted plants to other types of crops (3.1 acres) does not represent a significant regional loss and would not conflict with the Williamson Act designation. Therefore, impacts would be less than significant (Class III).
Recreational Resources

As discussed in Section 4.11, Recreation, the Project would be constructed within 0.5 mile of Cache Creek, the Sacramento River, Rio Ramaza Marina, and existing Class II bikeways in the City of Roseville. The temporary short-term nature of the HDD crossing of the Sacramento River would not impact river recreation, including the marina. The bike paths would not be affected as the proposed alignment would not extend past the intersection of Baseline Road and Fiddyment Road. Therefore, the Project would not result in conflicts with planning efforts to protect the recreational resources of an area and would be less than significant (Class III).

Divide an Established Community

The proposed Project alignment passes through primarily agricultural or undeveloped lands. The proposed Project would follow the edge of the Sutter Pointe Specific Plan area and the Placer Vineyards Development area, but would not physically divide either of these areas. As a result, the Project would not physically divide a community and would be less than significant (Class III).

Impact LU-1: Conflict with Adjacent Land Uses

The Project would not conflict with development plans for the Sutter Pointe Specific Plan Area, Placer Vineyards Specific Plan, the Sierra Vista Specific Plan, or the Curry Creek Specific Plan, but would cross lands included in the Natomas Basin Conservancy and River Ranch Conservation Bank. The Project could also conflict with operation of Western Area Power Administration (WAPA) power lines (Potentially Significant, Class II).

The proposed Project would cross areas designated as mitigation lands by the Natomas Basin Conservancy (a portion of Line 407-W). These mitigation lands contain foraging habitat for Swainson’s hawk that nest along the adjacent Sacramento River. They also contain a drainage canal, which is considered a movement corridor for giant garter snake.

The proposed Project would cross areas included in the River Ranch Conservation Bank (a portion of Line 407-W). The River Ranch Conservation Bank, managed by Wildlands Inc., is a 76-acre mitigation bank west of the Sacramento River and on both sides of CR-16 in Yolo County. It provides permanent habitat for the endangered Valley elderberry longhorn beetle (VELB). The bank is within a 3,682-acre property owned by the Sacramento River Ranch LLC. The bank sells
conservation credits for the loss of valley elderberry longhorn beetle habitat within the primary service area, which includes all of Sutter, most of Sacramento, and smaller portions of Yolo and Placer counties. Wildlands plans to open two additional portions of the River Ranch valley elderberry longhorn beetle conservation bank, encompassing an additional 95 acres.

The proposed Project could potentially conflict with operation of portions of the Olinda-Tracy 500 kV, Obanion-Elverta 230 kV, Cottonwood-Roseville 230 kV, and Roseville-Elverta/Roseville-Fiddyment 230kV transmission lines within Placer County.

Mitigation Measures for Impact LU-1: Conflict with Adjacent Land Uses

MM LU-1a. Mitigation for Impacts to the Natomas Basin Conservancy
Mitigation Lands. Implement MM BIO-4b pertaining to mitigation for impacts to Natomas Basin Conservancy mitigation Lands.

MM LU-1b. Mitigation for Impacts to the Sacramento River Ranch Conservation Bank Mitigation Lands. Implement MM BIO-4c pertaining to mitigation for impacts to Sacramento River Ranch Conservation Bank mitigation lands.

MM LU-1c WAPA License Agreement. Prior to initiating Project construction, PG&E shall submit Project plans to Western Area Power Administration (WAPA) and obtain approval for a license agreement to conduct work in the area covered by the WAPA easement.

Rationale for Mitigation

Implementation of MM LU-1a (MM BIO-4b) would prevent direct and indirect impacts to Natomas Basin Conservancy mitigation lands. Implementation of MM LU-1b (MM BIO-4c) would prevent direct and indirect impacts to River Ranch Conservation Bank mitigation lands. MM LU-1c would reduce impacts to WAPA power line operations. All impacts would be reduced to less than significant.

Impact LU-2: Result in Safety Risk to Nearby Land Uses

The proposed Project would expose people to an unacceptable risk of existing or potential hazards, including upset and accident conditions involving the
risk for fires, explosions, or the release of natural gas into the environment (Significant, Class I).

For a more detailed discussion of the safety risks to land uses along the proposed pipeline, refer to Section 4.7, Hazards and Hazardous Materials.

High Consequence Areas

The U.S. Department of Transportation provides oversight for the nation's natural gas pipeline transportation system. Its responsibilities are promulgated under Title 49 United States Code (USC) Chapter 601. The Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), administers the national regulatory program to ensure the safe transportation of gas and other hazardous materials by pipeline.

Areas at risk of pipeline releases are known as High Consequence Areas (HCAs). Federal DOT regulations define area classifications, based on population density of the pipeline vicinity and on an area that extends for 660 feet (220 yards) on either side of the centerline of any continuous one-mile length of the pipeline. The class locations along the proposed pipeline route are shown in Figure 2-7. The four area classifications are defined as follows:

- **Class 1**: A location with ten or fewer buildings intended for human occupancy;
- **Class 2**: A location with more than ten but less than 46 buildings intended for human occupancy;
- **Class 3**: A location with 46 or more buildings intended for human occupancy or where the pipeline lies within 300 feet (100 yards) of any building or small well-defined outside area occupied by 20 or more people during normal use; and
- **Class 4**: A location where buildings with four or more stories aboveground are prevalent.

Natural gas could be released from a leak or rupture. If the natural gas reached a combustible mixture and an ignition source was present, a fire and/or explosion could occur, result in possible injuries and/or deaths. An unacceptable risk is defined as a one in a million (1:1,000,000) chance of a fatality (CDE 2007).

The risks associated with Line 406 were assessed using the existing conditions. The risks associated with Line 407 and the DFM were assessed using existing
conditions, plus the impacts of the proposed land developments within Placer County, including Sutter Pointe, Placer Vineyard, Sierra Vista, and Curry Creek.

The anticipated individual frequency of serious injury or fatality from the proposed project is approximately $6.1 \times 10^{-5}$. This represents a 1:16,000 likelihood of a serious injury or fatality annually, which is roughly sixty times greater than the generally accepted criteria of 1:1,000,000. The individual risks posed by each of the individual line segments are also summarized. As noted, the risk for each of the individual line segments, except Line DFM, exceeds the individual risk significance criteria.

During operation, the greatest risk for injury and fatality occurs with a leak or unintentional release of natural gas. The most frequent causes of incidents include corrosion and outside forces. Proper design, construction, and maintenance of the pipeline would minimize leaks and corrosion. The pipeline would be buried along its entire length, except at metering stations, regulating stations, and pressure limiting stations, which would be fenced to prevent access. PG&E has increased the cover beyond minimum requirements to 5 feet, which would provide increased protection from third party damage including agricultural operations. PG&E proposes to meet pipeline wall thickness requirements and in some areas of the pipeline go beyond the required thickness for the proposed Project. PG&E also proposes to "butt-weld" all pipeline sections, that is, welded together without the ends overlapping. All welds (100 percent) would be x-rayed to ensure structural integrity and compliance with applicable DOT regulations.

The required regulations along with PG&E Project features that meet and exceed the minimum requirements would reduce risks of project upset. However, additional measures are required to attempt to further reduce the proposed Project impacts.

Mitigation Measures for Impact LU-2: Result in Safety Risk to Nearby Land Uses

**MM LU-2a Mitigation for Safety Risk to Nearby Land Uses.** Implement MM HAZ-2a, Corrosion Mitigation, pertaining to post-construction geometry pig surveys, baseline inspection and internal inspections with a high resolution instrument (smart pig) a minimum of once every 7 years, and development of an Operation and Maintenance Plan and an Emergency Response Plan.

**MM LU-2b Mitigation for Safety Risk to Nearby Land Uses.** Implement MM HAZ-2b, Installation of Automatic Shut-down Valves, pertaining to the installation of automatic shutdown valves in three locations: Power
Corrosion has been found to be one of the main causes of leaks or ruptures. Studies have shown that corrosion occurs more often in older pipes, therefore using pipe manufactured after 2000 would help reduce corrosion. In addition, corrosion can be slowed down by increasing the thickness of the coating on the outside of the pipe, increasing the thickness of the pipe, and by increased surveillance through cathodic protection. The corrosion mitigation measure would reduce the incidence of leaks and therefore would reduce the individual risk of serious injury or fatality. Increased wall thickness allows more time to pass before a leak may result.

With the proposed mitigation the incidence of leaks and possible explosion due to outside forces would be reduced, thereby reducing the individual risk of serious injury or fatality. Studies from western Europe have shown that increased wall thickness reduced the frequency of unintentional releases by third parties by 80 percent, increased depth of cover of 48 inches or more reduced third party-caused incidents by 30 percent, and pipelines protected by some form of warning device reduced third party-caused incidents by 10 percent (HSE 2001).

The Project design features and the proposed mitigation measures MM LU-2a (MM HAZ-2a) and MM LU-2b (MM HAZ-2b) reduce the risk by 50 percent. However, the individual risk would still be approximately 1:30,000, which exceeds individual risk significance thresholds by a factor of thirty. In addition, the sensitive receptors located within certain distances along the proposed Project alignment would be significantly impacted due to risks of explosion, torch fires, and flash fires. Therefore, impacts remain significant (Class I).

A No Project Alternative as well as twelve options have been proposed for the alignment in order to minimize environmental impacts of the proposed Project and to respond to comments from nearby landowners. The twelve options, labeled A through L, have been analyzed in comparison to the portion of the proposed route that has been avoided because of each of the options. Descriptions of the options
can be found in Section 3.0, Alternatives and Cumulative Projects, and are depicted in Figure 3-2A through 3-2K. A comparison of impacts is found in Table 4.9-2.

**No Project Alternative**

Under the No Project Alternative, no natural gas pipeline would be constructed by PG&E in Yolo, Sutter, Sacramento, and Placer counties. There would not be any conflict with adjacent land uses, nor any safety issues to land uses in the area. There would be no land use impacts under the No Project Alternative.

**Option A**

The area through which the Option A alignment would pass has similar land uses and land use designations as the proposed Project. Land uses are predominantly agricultural. This alignment would avoid segmenting eight orchard fields and removing trees from an orchard at the west end of the proposed alignment. However, trees within orchards near the Sacramento River would still be disturbed. The amount of agricultural land converted to non-agricultural uses (2.55 acres) due to the six aboveground stations would be the same as the proposed alignment with this option. The amount of temporary construction impacts to agricultural fields would be increased with this option due to the increased length (an additional 2,200 feet) along agricultural fields. The amount of agricultural land restricted in the permanent easement to allow only shallow rooted crops to be grown would also be increased with this option.

This option would not reduce impacts to the Natomas Conservancy Mitigation Lands, the River Ranch Conservation Bank, or WAPA lands, since this alignment would not change the portions that pass through these lands.

Significant and unavoidable (Class I) impacts related to safety risks associated with nearby land uses would not be reduced with this alternative. In addition to the HCA areas associated with the proposed Project, this option would impact Durst Organic Growers, a business that has approximately 40 employees year round, and as many as 300 during peak farming periods. By placing the pipeline in close proximity to Durst, a new “high consequence area” or “HCA” would be created along this portion of the pipeline, while the proposed alignment would not result in an HCA in this area.

While significant impacts associated with the proposed Project would not be reduced with this alignment, the impacts related to the number of HCA areas would be increased under Option A.
Option B

The area through which the Option B alignment would pass has similar land uses and land use designations as the proposed Project. Land uses are predominantly agricultural. This alignment would avoid segmenting 13 agricultural fields and removing trees from an orchard at the west end of the proposed alignment. However, trees within orchards near the Sacramento River would still be disturbed. The amount of agricultural land converted to non-agricultural uses (2.55 acres) due to the six aboveground stations would be the same as the proposed alignment with this option. The amount of temporary construction impacts to agricultural fields would be increased with this option due to the increased length (an additional 2,640 feet) along agricultural fields. The amount of agricultural land restricted in the permanent easement to allow only shallow rooted crops to be grown would also be increased with this option.

This option would not reduce impacts to the Natomas Conservancy Mitigation Lands, the River Ranch Conservation Bank, or WAPA lands, since this alignment would not change the portions that pass through these lands.

Significant and unavoidable (Class I) impacts related to safety risks associated with nearby land uses would not be reduced with this alternative. In addition to the HCA areas associated with the proposed Project, this option would impact Durst Organic Growers, a business that has approximately 40 employees year round, and as many as 300 during peak farming periods. By placing the pipeline in close proximity to Durst, a new “high consequence area” or “HCA” would be created along this portion of the pipeline, while the proposed alignment would not result in an HCA in this area.

While significant impacts associated with the proposed Project would not be reduced with this alignment, the impacts related to the number of HCA areas would be increased under Option B.

Option C

The area through which the Option C alignment would pass has similar land uses and land use designations as the proposed Project. Land uses are predominantly agricultural. This alignment would avoid segmenting three agricultural fields and removing trees from an orchard at the west end of the proposed alignment. However, trees within orchards near the Sacramento River would still be disturbed. The amount of agricultural land converted to non-agricultural uses (2.55 acres) due to the six aboveground stations would be the same as the proposed alignment with
this option. The amount of temporary construction impacts to agricultural fields, the
amount of orchard conversion, and the amount of agricultural land restricted in the
permanent easement to allow only shallow rooted crops to be grown, would be
similar to the proposed project.

This option would not reduce impacts to the Natomas Conservancy Mitigation
Lands, the River Ranch Conservation Bank, or WAPA lands, since this alignment
would not change the portions that pass through these lands.

Significant and unavoidable (Class I) impacts related to safety risks associated with
nearby land uses would not be reduced with this alternative. Therefore, impacts
would remain the same as the proposed Project under Option C.

Option D

The area through which the Option D alignment would pass has similar land uses
and land use designations as the proposed Project. Land uses are predominantly
agricultural and rural residential.

While Option D would move the pipeline alignment closer to seven residences
located along CR 17, it would avoid segmenting ten agricultural fields. The amount
of agricultural land converted to non-agricultural uses (2.55 acres) due to the six
aboveground stations would be the same as the proposed alignment with this option.
The amount of temporary construction impacts to agricultural fields, the amount of
orchard conversion, and the amount of agricultural land restricted in the permanent
easement to allow only shallow rooted crops to be grown, would be similar to the
proposed project.

This option would not reduce impacts to the Natomas Conservancy Mitigation
Lands, the River Ranch Conservation Bank, or WAPA lands, since this alignment
would not change the portions that pass through these lands.

Significant and unavoidable (Class I) impacts related to safety risks associated with
nearby land uses would not be reduced with this alternative. Therefore, impacts
would remain the same as the proposed Project under Option D.

Option E

The area through which the Option E alignment would pass has similar land uses
and land use designations as the proposed Project. Land uses are predominantly
agricultural and rural residential.
While Option E would move the pipeline alignment closer to five residences along CR-19, it would avoid segmenting ten agricultural fields. The amount of agricultural land converted to non-agricultural uses (2.55 acres) due to the six aboveground stations would be the same as the proposed alignment with this option. The amount of temporary construction impacts to agricultural fields, the amount of orchard conversion, and the amount of agricultural land restricted in the permanent easement to allow only shallow rooted crops to be grown, would be similar to the proposed project.

This option would not reduce impacts to the Natomas Conservancy Mitigation Lands, the River Ranch Conservation Bank, or WAPA lands, since this alignment would not change the portions that pass through these lands.

Significant and unavoidable (Class I) impacts related to safety risks associated with nearby land uses would not be reduced with this alternative. Therefore, impacts would remain the same as the proposed Project under Option E.

Option F

Option F would avoid segmenting one agricultural field by placing this short segment of pipeline along the parcel boundary and within close proximity to one additional residence.

The amount of impacts to orchards would be the same as the proposed Project. The amount of agricultural land converted to non-agricultural uses (2.55 acres) due to the six aboveground stations would be the same as the proposed alignment with this option. The amount of temporary construction impacts to agricultural fields, the amount of orchard conversion, and the amount of agricultural land restricted in the permanent easement to allow only shallow rooted crops to be grown, would be similar to the proposed Project.

This option would not reduce impacts to the Natomas Conservancy Mitigation Lands, the River Ranch Conservation Bank, or WAPA lands, since this alignment would not change the portions that pass through these lands.

Significant and unavoidable (Class I) impacts related to safety risks associated with nearby land uses would not be reduced with this alternative. Therefore, impacts would remain the same as the proposed Project under Option F.
Option G

Option G would avoid segmenting one agricultural field by placing this short segment of pipeline along the boundary of the agricultural field near CR-17.

Trees within the orchards at the west end of the alignment and near the Sacramento River would still be disturbed under this option. The amount of agricultural land converted to non-agricultural uses (2.55 acres) due to the six aboveground stations would be the same as the proposed alignment with this option. The amount of temporary construction impacts to agricultural fields, and the amount of agricultural land restricted in the permanent easement to allow only shallow rooted crops to be grown, would be similar to the proposed project.

This option would not reduce impacts to the Natomas Conservancy Mitigation Lands, the River Ranch Conservation Bank, or WAPA lands, since this alignment would not change the portions that pass through these lands.

Significant and unavoidable (Class I) impacts related to safety risks associated with nearby land uses would not be reduced with this alternative. Therefore, impacts would remain the same as the proposed Project under Option G.

Option H

The area through which the Option H alignment would pass has similar land uses and land use designations as the proposed Project. Land uses are predominantly agricultural.

This option would still pass through lands associated with the Yolo Bypass and would impact one additional agricultural field. However, this option would avoid lands within the Sacramento River Ranch Conservation Bank and the Natomas Basin Conservancy.

Trees within the orchards at the west end of the alignment and near the Sacramento River would still be disturbed under this option. The amount of agricultural land converted to non-agricultural uses (2.55 acres) due to the six aboveground stations would be the same as the proposed alignment with this option. The amount of temporary construction impacts to agricultural fields, and the amount of agricultural land restricted in the permanent easement to allow only shallow rooted crops to be grown, would be increased by this option.
Significant and unavoidable (Class I) impacts related to safety risks associated with nearby land uses would not be reduced with this alternative. Therefore, impacts would be the same as for the proposed Project.

**Option I**

Option I would reroute a portion of Line 407-E to the north to place the pipeline outside of a 1,500-foot safety buffer zone around a planned high school to be located on the south side of Baseline Road.

Instead of placing this segment of the pipeline route along Base Line Road the option would cross three agricultural fields, and cross five wetlands or water bodies. The pipeline would remain near residences along South Brewer Road and Country Acres Lane, but would be located farther away from six residences along Base Line Road.

The amount of agricultural land converted to non-agricultural uses (2.55 acres) due to the six aboveground stations would be the same as the proposed alignment with this option. The amount of impacts to orchards would be the same as the proposed Project; however, the amount of temporary construction impacts to agricultural fields and the amount of agricultural land restricted in the permanent easement to allow only shallow rooted crops to be grown would be increased by this option.

This option would not reduce impacts to the Natomas Conservancy Mitigation Lands, the River Ranch Conservation Bank, or WAPA lands, since this alignment would not change the portions that pass through these lands.

Significant and unavoidable (Class I) impacts related to safety risks associated with nearby land uses would not be reduced to less than significant. Therefore, the impacts would be similar to the proposed Project.
Option J

Option J would reroute a portion of Line 407-E to the north to place the pipeline outside of a 1,500-foot safety buffer zone around a planned high school to be located on the south side of Base Line Road.

Instead of placing this segment of the pipeline route along Base Line Road, the option would be placed near the boundaries of three agricultural fields and would cross five wetlands or water bodies. The pipeline would remain near residences along South Brewer Road and Country Acres Lane, but would be located farther away from six residences along Base Line Road.

The amount of agricultural land converted to non-agricultural uses (2.55 acres) due to the six aboveground stations would be the same as the proposed alignment with this option. The amount of impacts to orchards would be the same as the proposed Project; however, the amount of temporary construction impacts to agricultural fields and the amount of agricultural land restricted in the permanent easement to allow only shallow rooted crops to be grown would be increased by this option.

This option would not reduce impacts to the Natomas Conservancy Mitigation Lands, the River Ranch Conservation Bank, or WAPA lands, since this alignment would not change the portions that pass through these lands.

Significant and unavoidable (Class I) impacts related to safety risks associated with nearby land uses would not be reduced to less than significant. Therefore, impacts would be similar to the proposed Project.

Option K

Option K would reroute a portion of Line 407-E approximately 150 feet to the north to place the pipeline outside of a 1,500-foot safety buffer zone around a planned elementary school to be located south of Base Line Road. Rather than following Base Line road, the pipeline would cross through annual grassland, a vernal pool, and seasonal wetland.

The amount of agricultural land converted to non-agricultural uses (2.55 acres) due to the six aboveground stations would be the same as the proposed alignment with this option. The amount of impacts to orchards, the amount of temporary construction impacts to agricultural fields, and the amount of agricultural land
restricted in the permanent easement to allow only shallow rooted crops to be grown would be the same as the proposed Project.

This option would not reduce impacts to the Natomas Conservancy Mitigation Lands, the River Ranch Conservation Bank, or WAPA lands, since this alignment would not change the portions that pass through these lands.

Significant and unavoidable (Class I) impacts related to safety risks associated with nearby land uses would not be reduced to less than significant.

Although this realignment would place the proposed natural gas line outside the 1,500-foot buffer, it is unlikely that serious risks would be posed to the student body from the applicant proposed pipeline location, which is approximately 1,350 feet from the school boundary. Impacts would be the same as for the proposed Project.

**Option L**

Option L would extend the proposed Line 406-E HDD for approximately 1,000 feet to the east along Base Line Road in order to increase the amount of covered pipeline located within a 1,500-foot safety buffer zone around a planned elementary school that is to be located south of Base Line Road.

The amount of agricultural land converted to non-agricultural uses (2.55 acres) due to the six aboveground stations would be the same as the proposed alignment with this option. The amount of impacts to orchards, the amount of temporary construction impacts to agricultural fields, and the amount of agricultural land restricted in the permanent easement to allow only shallow rooted crops to be grown would be the same as the proposed Project.

This option would not reduce impacts to the Natomas Conservancy Mitigation Lands, the River Ranch Conservation Bank, or WAPA lands, since this alignment would not change the portions that pass through these lands.

Significant and unavoidable (Class I) impacts related to safety risks associated with nearby land uses would not be reduced to less than significant. Option L would involve installing the portion of Line 407, Phase I which is within the 1,500-foot buffer of a planned elementary school, using horizontal directional drilling techniques. This would significantly reduce or eliminate the likelihood of the line being damaged by third parties, since the line would be installed well below normal excavation depths.
Although the risk would decrease under Option L, the impacts would be similar to the proposed Project.

Table 4.9-2: Comparison of Alternatives for Land Use

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Comparison with Proposed Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Project</td>
<td>No Impacts</td>
</tr>
<tr>
<td>Option A</td>
<td>Greater Impacts</td>
</tr>
<tr>
<td>Option B</td>
<td>Greater Impacts</td>
</tr>
<tr>
<td>Option C</td>
<td>Similar Impacts</td>
</tr>
<tr>
<td>Option D</td>
<td>Similar Impacts</td>
</tr>
<tr>
<td>Option E</td>
<td>Similar Impacts</td>
</tr>
<tr>
<td>Option F</td>
<td>Similar Impacts</td>
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<td>Option G</td>
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<tr>
<td>Option K</td>
<td>Similar Impacts</td>
</tr>
<tr>
<td>Option L</td>
<td>Similar Impacts</td>
</tr>
</tbody>
</table>


4.9.7 Cumulative Projects Impact Analysis

Future projects considered in the cumulative projects impact analysis include those listed in Table 3.2 in Section 3.0, Alternatives and Cumulative Projects.

The proposed Project would conflict with adjacent land uses. The proposed Project alignment would cross the Natomas Conservancy lands and the Sacramento River Ranch Conservation Bank lands that are managed for mitigation. The proposed Project alignment would also overlap with four transmission line projects managed by WAPA in Placer County. These conflicts would be mitigated to a less than significant level.

The proposed Project would not result in cumulative impacts in terms of dividing a community or conflicts with protecting recreational resources. The Sacramento Metro Air Park and the Sutter Pointe Specific Plan and related projects would not
result in loss of any recreational resources. The Placer Vineyards project would create new recreational resources, and the Sierra Vista Specific Plan would be implemented in an area where there are not any recreational resources.

When considered with other projects in the area, the proposed Project would not add to cumulative impacts in terms of consistency with applicable plans, policies, and ordinances in jurisdictions affected by the proposed Project. The proposed Project would not require any General Plan amendments to re-designate any of the current land uses described in Table 4.9-1.

However, the safety risks to nearby land uses would be significant and unavoidable. Areas at risk of pipeline releases are known as High Consequence Areas (HCAs). The Project HCA areas are shown on Figure 2-7, and are described in more detail in Section 4.7, Hazards and Hazardous Materials. The required regulations, along with PG&E Project features that meet and exceed the minimum requirements, would reduce risks of project upset, but not to less than significant levels. Development of the specific plan areas along portions of the proposed Project would result in increased exposure of people to an unacceptable risk of existing or potential hazards, including upset and accident conditions involving the risk for fires, explosions, or the release of natural gas into the environment. Therefore, cumulative impacts to land uses with regard to increased safety risks would be significant and unavoidable (Class I).

4.9.8 Summary of Impacts and Mitigation Measures

Table 4.9-3 presents a summary of impacts on land use and planning and the recommended mitigation measures.

Table 4.9-3: Summary of Land Use and Planning Impacts and Mitigation Measures

<table>
<thead>
<tr>
<th>Impact</th>
<th>Mitigation Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>LU-1. Conflict with Adjacent Land Uses.</td>
<td>LU-1a. Mitigation for impacts to the Natomas Basin Conservancy mitigation lands.</td>
</tr>
<tr>
<td></td>
<td>LU-1b. Mitigation for impacts to the Sacramento River Ranch Conservation Bank mitigation lands.</td>
</tr>
<tr>
<td></td>
<td>LU-1c. WAPA license agreement.</td>
</tr>
<tr>
<td></td>
<td>LU-2b. Mitigation for safety risk to nearby land uses.</td>
</tr>
</tbody>
</table>
