3.8 ENERGY AND MINERAL RESOURCES

This section analyzes the potential effects the project and project alternatives would have on non-renewable energy and mineral resources in the area. Included is an examination of the project's effects on local sand and gravel mining, as well as on the ability to extract natural gas from local gas fields.

3.8.1 ENVIRONMENTAL SETTING

REGIONAL SETTING

The PG&E gas transmission system provides natural gas to about 3.6 million customers. The service area spans approximately 70,000 square miles and includes all or portions of 48 of California's 58 counties. PG&E sells and distributes natural gas to its customers through either direct customer sales or direct purchase by a customer from competitive suppliers using PG&E's gas transmission and distribution lines.

PG&E's main natural gas transmission lines are high-pressure, high-flow pipelines. Most of the approximately 5,700 miles of transmission pipelines are buried underground. PG&E's transmission pipeline system includes 41 compressors, which pressurize the natural gas to 61–1,000 pounds per square inch. The LGS transmission line would tie into PG&E's Line 401 and Line 196.

LOCAL SETTING

Mineral Resources

The most common mineral resources in the project area are sand and gravel, which are used for road base and in Portland cement concrete. Other important mineral resources that have been extracted in San Joaquin and Sacramento Counties include gold, silver, manganese, limestone, clay, and peat soil. Figure 3.8-1 shows historic mining and natural gas fields in the project area (Clark, 1955; Carlson, 1955). This figure also shows mineral land classification of Portland cement aggregate (California Division of Mines and Geology, 1988a, 1988b).

Energy Resources

Energy resources in the project area include numerous natural gas fields. Under the proposed project and alternatives, the field pipelines would cross the abandoned Lodi gas field. The separation facility would be located above this field. The transmission pipeline alternatives would also cross active, natural gas fields in southwestern Sacramento County, such as the River Island, Isleton, and Rio Vista gas fields.

3.8.2 REGULATORY SETTING

The California Surface Mining and Reclamation Act (Public Resources Code Sections 2710 et seq.) establishes state policies for the protection and continued availability of mineral resources. Under this act, the State Geologist identifies areas with mineral resources of statewide and regional significance. Cities and counties are then required to incorporate policies that are consistent with the act into their general plans.

The San Joaquin and Sacramento County General Plans both state goals to "protect the access to potential mineral and energy resources until the resource is depleted" (San Joaquin County, 1992; County of Sacramento Planning and Community Development Department, 1993). This goal is to be accomplished by delaying growth in these areas because development (e.g., construction, residential development) prohibits resource extraction to occur by limiting surface access to the resources.

3.8.3 SIGNIFICANCE CRITERIA

Criteria for determining the significance of impacts on energy and mineral resources were developed based on questions contained in the environmental checklist form in Appendix G of the State CEQA Guidelines. Based on these checklist questions, a project may have a significant effect on the environment if it would eliminate the availability of:

- a known mineral resource that would be of value to the region and the residents of the state; or

- a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan.

Section 15064(h) of the State CEQA Guidelines states that a change in the environment is not a significant effect if the change complies with a standard that is a quantitative, qualitative, or performance requirement found in a statute, ordinance, resolution, rule, regulation, order, or other standard of general application. For the purposes of analyzing the energy and mineral resource effects of the proposed project and project alternatives, an impact on mineral resources and energy is considered significant if the proposed project would conflict with the goals and policies of the Sacramento or San Joaquin County General Plan.

3.8.4 IMPACTS OF THE PROPOSED PROJECT AND MITIGATION MEASURES

Impact 3.8-1: Potential to Overcover or Preclude Extraction of Mineral Resources

Project implementation would not adversely affect any known energy or mineral resources. The project is not in the vicinity of any known mineral resources (Figure 3.8-1). Construction and operation of the project also would not interfere with or preclude the operation of active natural gas fields in the region. Additionally, the proposed project is designed to operate within the surplus capacity of the existing PG&E distribution system. This impact is less than significant.

Mitigation Measures

None required.

3.8.5 IMPACTS OF THE PUBLIC RIGHT-OF-WAY ROUTE ALTERNATIVE AND MITIGATION MEASURES

IMPACTS

The effects of the Public Right-of-Way Route Alternative on energy and mineral resources would be identical to those described for the proposed project.

Mitigation Measures

None required.

3.8.6 IMPACTS OF THE EXISTING PIPELINE CORRIDOR ALTERNATIVE AND MITIGATION MEASURES

IMPACTS

The effects of the Existing Pipeline Corridor Alternative on energy and mineral resources would be identical to those described for the proposed project.

Mitigation Measures

None required.

3.8.7 IMPACTS OF THE COMPOSITE ROUTE ALTERNATIVE AND MITIGATION MEASURES

IMPACTS

The effects of the Composite Route Alternative on energy and mineral resources would be identical to those described for the proposed project.

Mitigation Measures

None required.

REFERENCES—ENERGY AND MINERAL RESOURCES

California Division of Mines and Geology, *Mineral Land Classification for Portland Cement Aggregate* (DMG Special Report 156), Sacramento, Calif., 1988a.

California Division of Mines and Geology, *Mineral Land Classification for Portland Cement Aggregate* (DMG Special Report 160), Sacramento, Calif., 1988b.

Carlson, Denton W., "Mines and Mineral Resources of Sacramento County, CA," *California Journal of Mines and Geology*, Vol. 51, No.2, pp. 117-199, April 1955.

Clark, William B., "Mines and Mineral Resources of San Joaquin County, CA," *California Journal of Mines and Geology*, Vol. 51, No.1, pp. 21-95, January 1955.

County of Sacramento Planning and Community Development Department, "Open Space, Conservation, and Resources Management Element" in *County of Sacramento General Plan*, Sacramento, Calif., 1993.

San Joaquin County, *San Joaquin County General Plan 2010*, Stockton, Calif., 1992.