3.6 TRANSPORTATION AND CIRCULATION

This section examines the potential effects the project and project alternatives would have on local transportation, which is mainly focused on surface street and highway circulation flows. The analysis focuses on effects during construction, which is when local streets and highways would be most affected by the project. Effects on local streets and highways during project operations are also described. Key issues include the design features that the Applicant has committed to implementing, which would minimize traffic and congestion, (see Section 2.4.13, "Mitigation Measures Proposed by the Applicant") and whether the transportation effects of the project conform with local planning guidelines.

3.6.1 ENVIRONMENTAL SETTING

EXISTING TRAFFIC CONDITIONS

Several state highways and local roads provide access to the project area. Highway 99 and Interstate 5 traverse the project area in the north-south direction. Access to most project sites is available on Highway 99 and Jahant Road.

For this environmental review, local roadways were evaluated using level of service (LOS) criteria. LOS ratings primarily address the roadway's existing traffic volume compared to the roadway's full capacity. LOS A represents free-flow conditions and indicates that only 60% or less of the roadway traffic capacity is being utilized. LOS F represents jammed conditions and indicates that the roadway is operating at more than 100% of its designed traffic capacity. Based on traffic surveys conducted as part of this environmental review, local roadways in the study area are rated at LOS A. No local roadways in the study area have substantial traffic congestion.

3.6.2 REGULATORY SETTING

SAN JOAQUIN COUNTY GENERAL PLAN

San Joaquin County regulates traffic through the objectives and policies contained in the San Joaquin County General Plan Transportation Element (San Joaquin County, 1992). The transportation element states that project proponents shall provide the transportation system improvements necessary to serve their developments. Furthermore, to reduce peak-hour traffic congestion, alternative forms of commuting, such as carpooling and vanpooling, shall be considered. The transportation element also states that the County shall promote the safety of the transportation systems used in San Joaquin County.

SACRAMENTO COUNTY GENERAL PLAN

Sacramento County regulates traffic through the objectives and policies contained in the Sacramento County General Plan Transit-Oriented Development Design Guidelines (County of Sacramento, 1990). The principal guidelines relate to reducing the number of automobile trips and vehicle miles traveled in the region, reducing air pollutant emissions, and linking land uses with alternative transit options.

3.6.3 SIGNIFICANCE CRITERIA

Criteria for determining the significance of transportation and circulation impacts were developed based on questions contained in the environmental checklist form in Appendix G of the State CEQA Guidelines and professional judgment. Based on the checklist questions, a project may have a significant effect on the environment if it would result in:

- an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system;
- the exceedance, either individually or cumulatively, of a level-of-service standard established by the appropriate county's traffic congestion management agency for any designated roads or highways; or
- inadequate emergency access.

3.6.4 IMPACTS OF THE PROPOSED PROJECT AND MITIGATION MEASURES

METHODOLOGY

The transportation and circulation analysis was based on project siting and design information provided by LGS. The project and project alternatives include mitigation measures proposed by the Applicant to avoid causing traffic impacts, including adopting and implementing a plan to minimize peak-hour traffic and traffic congestion during the construction phase. These mitigation measures are described in Chapter 2, "Project and Alternatives Description." Unless otherwise noted, the methodology is the same for the analysis of alternatives.

IMPACTS

Impact 3.6-1: Temporary Increase in Traffic in the Project Area during Construction

During peak periods of construction, approximately 190–230 people would be working in the project area. This number includes workers associated with all aspects of project construction (i.e., pipeline construction and construction of related facilities). In addition, construction of the proposed project would entail the delivery of raw materials to the various sites. As many as 20 daily truck trips would be required for material delivery and removal at the project sites.

Combining construction employee traffic volumes with delivery and haul truck trips, project construction would entail 170–200 vehicle trips per day. This traffic would have a negligible effect on traffic volumes on Highway 99. Construction-related traffic would, however, represent a large increase in traffic volumes on local roadways during peak commute hours (approximately 75-80 trips per morning and afternoon peak periods). As discussed above, local roadways in the project area have extremely low volumes, and generally operate at LOS A. No alteration of LOS is expected from construction-related traffic (Lopez, 1999). Because construction traffic would not substantially increase traffic loads on roadways in the project area, such that the existing LOS would be altered, this impact is less than significant.

Mitigation Measures

None required.

Impact 3.6-2: Temporary Disruption of Circulation from Project Construction

Construction traffic on local roadways during construction of proposed project facilities would inconvenience residences, businesses, and adjacent agricultural operations. Although construction of the field and transmission pipelines would not occur within public roads, the Applicant has committed to minimizing peak-hour traffic and congestion by limiting lane closures on signalized intersections to off-peak hours, encouraging car/van pooling, and requiring the construction contractor to work with Sacramento and San Joaquin County Departments of Public Works on the timing and routing of construction equipment. Although the extent of public roads affected by construction of the proposed pipeline alignment is limited, the potential remains for construction traffic and construction activities within and adjacent to road rights-of-way to disrupt routine agricultural operations. This impact is significant. Implementation of Mitigation Measure 3.6-1 would reduce this impact to a less-than-significant level.

Mitigation Measure 3.6-1: Develop and implement a traffic control plan

In coordination with the Sacramento County and San Joaquin County Departments of Public Works, the Applicant will develop and implement a traffic control plan for all construction activities proposed within and adjacent to public road rights-of-way that would delay or disrupt local roadway traffic. All construction activities affecting public road rights-of-way will follow the standard construction specifications and

procedures of these jurisdictions. The traffic control plan should include, but not be limited to, the following measures:

- Coordinate with affected jurisdictions on lane closures.
- Follow guidelines of the local jurisdiction for road closures caused by construction activities.
- Limit lane closures during peak commuting hours to the extent possible.
- Install traffic control devices as specified in the California Department of Transportation's Manual of Traffic Control for Construction and Maintenance Works Zones.
- Provide alternative routes (detours), as necessary, to route local traffic around roadway construction.
- Provide notification of road closures to residents in the vicinity of pipeline construction.
- Provide access to driveways, private roads, and farm roads outside the immediate construction zone.
- Consult with emergency service providers and develop an emergency access plan for emergency vehicle access in and adjacent to the construction zone.

Monitoring Action — LGS will provide CPUC with a copy of the traffic management plan. CPUC will monitor construction activities within and adjacent to public road rights-of-way to ensure compliance with the plan.

Responsibility — CPUC

Timing — Monitoring should occur at least weekly during construction within and adjacent to public road rights-of-way.

Impact 3.6-3: Minimal Increase in Traffic during Project Operation

During the operational phase of the proposed project, a staff of approximately 15 local employees would operate and maintain the facilities and pipeline. The project Applicant currently anticipates that as many as five full-time employees would be onsite during the day shift, 7 days per week.
As part of the project design, trips to the separation facility, well pads, and pipeline would be limited under a requirement, agreed to by the project proponent, to minimize peak-hour traffic and traffic congestion during project operation. (This requirement is described in Chapter 2, "Project and Alternatives Description.") The employees would report to the compressor facility/field office site. The separation facility and the well pads

would not be occupied during normal, day-to-day operations. However, during normal operations (not including injection or withdrawal of gas), the well pads, separation facility, and pipeline route would be visited twice daily. During injection or withdrawal of gas, the sites would be occupied, and employees may make an additional 10–20 vehicle trips to these sites during these times. Traffic associated with the supply of materials and equipment to the compressor location is estimated at between five and 10 delivery vans or trucks per day. Solid waste would be picked up once per week, and one vacuum truck per week would be used to haul liquid waste to designated facilities.

Thus, during peak operations, as many as 45 vehicle trips would occur daily. These additional trips would have a negligible effect on the surrounding roadway network. Therefore, this impact is less than significant.

Mitigation Measures

None required.

Impact 3.6-4: Potential for Interference with Emergency Response Routes

Construction-related activities within and adjacent to public road rights-of-way and increased truck and vehicle traffic along project access routes could temporarily increase response times for emergency response providers along affected roadways. The potential for such disruptions to emergency response routes is significant. Implementation of Mitigation Measure 3.6-1 would reduce this impact to a less-than-significant level.

Mitigation Measure 3.6-1: Develop and implement a traffic control plan

Implementation of Mitigation Measure 3.6-1, as described above, would reduce the potential for interference with emergency response routes to a less-than-significant level.

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

IMPACTS

The major difference between the proposed project and the Public Right-of-Way Route Alternative, with regard to transportation and circulation, is a result of constructing the pipeline largely within existing public rights-of-way, or adjacent field edges when road rights-of-way are too narrow or unsafe to accommodate all necessary construction activities. Under the Public Right-of-Way Route Alternative, approximately 14.6 miles of local roads would be affected by pipeline construction. This alternative would also require an approximately 2 month longer construction period as estimated by the Applicant, than the proposed project, resulting in a longer, although still temporary, increase in construction traffic.

Temporary increases in traffic in the project area from construction of the Public Road Right-of-Way Route Alternative would be the same as described previously for the proposed project because the number of

construction-related vehicle trips would be the same. Additionally, the same minimal increase in roadway traffic would occur during operation of this project alternative as described for the proposed project.

Overall, this alternative pipeline alignment would result in substantially greater temporary construction traffic conflicts with local circulation because pipeline construction would occur within approximately 15 miles of existing road rights-of-way. Although the project proponent would implement measures to reduce peak-hour construction traffic and minimize congestion in the area, the construction of 15 miles of pipeline within existing road rights-of-way is significant. Implementation of Mitigation Measure 3.6-1 would reduce this impact to a less-than-significant level.

The potential for interference with emergency response routes would also be greater under this alternative as compared to the proposed project. Under this alternative, the pipeline would be constructed within a greater extent of public road right-of-way (14.6 miles, as compared to none for the proposed project). This impact is significant. Implementation of Mitigation Measure 3.6-1 would reduce this impact to a less-than-significant level.

Mitigation Measure 3.6-1: Develop and implement a traffic control plan

Implementation of Mitigation Measure 3.6-1, as described above, would reduce the traffic impacts of the Public Right-of-Way Route Alternative to a less-than-significant level.

3.6.6 IMPACTS OF THE EXISTING PIPELINE CORRIDOR ALTERNATIVE AND MITIGATION MEASURES

IMPACTS

The major difference between the Public Right-of-Way Route Alternative and the Existing Pipeline Corridor Alternative, with regard to transportation and circulation, is related to the routing of the pipeline. Pipeline routing under the Existing Pipeline Corridor Alternative would be along existing pipeline corridors through the western end of the pipeline alignment. Under the Existing Pipeline Corridor Alternative, approximately 1.7 miles of local roads would be affected by pipeline construction compared with approximately 14.6 miles of local roads under the Public Right-of-Way Route Alternative. This alternative would also require an approximately 1 month longer construction period, as estimated by the Applicant, than the proposed project, resulting in a longer, although still temporary, increase in construction traffic.

Temporary increases in traffic in the project area from construction of the Existing Pipeline Corridor Alternative would be the same as described previously for the proposed project and the Public Right-of-Way Route Alternative because the number of construction-related vehicle trips would be the same. Additionally, the same minimal increase in roadway traffic would occur during operation of this project alternative as described for the proposed project.

Overall, this alternative pipeline alignment would result in reduced temporary construction traffic conflicts with local circulation compared to the Public Right-of-Way Route Alternative, but greater impacts than associated with the proposed project, because pipeline construction would occur within approximately 1.7 miles of existing road rights-of-way. Although the construction traffic impacts would be reduced, the disruption of traffic on local roadways is still significant. Implementation of Mitigation Measure 3.6-1 would reduce this impact to a less-than-significant level.

The potential for interference with emergency response routes would also be greater under this alternative as compared to the proposed project. Under the Existing Pipeline Corridor Alternative, the pipeline would be constructed within or adjacent to a greater extent of public road right-of-way (1.7 miles, as compared to none for the proposed project). This impact is significant. Implementation of Mitigation Measure 3.6-1 would reduce this impact to a less-than-significant level.

Mitigation Measure 3.6-1: Develop and implement a traffic control plan

Implementation of Mitigation Measure 3.6-1, as described above, would reduce the traffic impacts of the Existing Pipeline Corridor Alternative to a less-than-significant level.

3.6.7 IMPACTS OF THE COMPOSITE ROUTE ALTERNATIVE AND MITIGATION MEASURES

IMPACTS

This alternative is a composite of the alternatives described above and contains elements of each. Generally, the alignment is identical to the proposed project at the eastern end of the pipeline route, except that it incorporates the alternate compressor location at Lind Airport. From the alternate compressor facility to Davis Road, the alignment is identical to the Public Right-of-Way Route Alternative, and from Davis Road to the PG&E Line 401 interconnect on Sherman Island, the route is identical to the Existing Pipeline Corridor Alternative.

Under the Composite Route Alternative, approximately 5.2 miles of local roads would be affected by pipeline construction compared with approximately 14.6 miles of local roads under the Public Right-of-Way Route Alternative. This alternative would also require an approximately 1 month longer construction period, as estimated by the Applicant, than the proposed project, resulting in a longer, although still temporary, increase in construction traffic.

Temporary increases in traffic in the project area from construction of the Composite Route Alternative would be the same as described previously for the proposed project and the Public Right-of-Way Route Alternative because the number of construction-related vehicle trips would be the same. Additionally, the same minimal increase in roadway traffic would occur during operation of this project alternative as described for the proposed project.

Overall, this alternative pipeline alignment would result in reduced temporary construction traffic conflicts with local circulation compared to the Public Right-of-Way Route Alternative, but greater impacts than associated with the proposed project, because pipeline construction would occur within approximately 5.2 miles of existing road rights-of-way. Although the construction traffic impacts would be reduced, the disruption of traffic on local roadways is still significant. Implementation of Mitigation Measure 3.6-1 would reduce this impact to a less-than-significant level.

The potential for interference with emergency response routes would also be greater under this alternative as compared to the proposed project. Under the Composite Route Alternative, the pipeline would be constructed within or adjacent to a greater extent of public road right-of-way (5.2 miles, as compared to none for the proposed project). This impact is significant. Implementation of Mitigation Measure 3.6-1 would reduce this impact to a less-than-significant level.

Mitigation Measure 3.6-1: Develop and implement a traffic control plan

Implementation of Mitigation Measure 3.6-1, as described above, would reduce the traffic impacts of the Composite Route Alternative to a less-than-significant level.

REFERENCES—TRANSPORTATION AND CIRCULATION

County of Sacramento, *Sacramento General Plan 1990-2010, Transit-Oriented Development Design Guidelines,* Sacramento, Calif., September 1990.

Institute of Transportation Engineers, *Traffic Access and Impact Studies for Site Development,* Transportation Planners Council, Washington, D.C., 1989.

Lopez, Manual, Engineering Assistant II, San Joaquin County Public Works Department, Stockton, Calif. February 25, 1999 - telephone communication.

San Joaquin County, *General Plan 2010, Transportation Element,* Stockton, Calif., adopted July 29, 1992.