F. OTHER CEQA CONSIDERATIONS

F.1 Growth-Inducing Effects

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) requires a discussion of the ways in which a proposed project could induce growth. CEQA Guidelines (Section 15126.2(d)) identify a project to be growth inducing if it fosters economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. New employees hired for proposed commercial and industrial development projects and population growth resulting from residential development projects represent direct forms of growth. Other examples of projects that are growth inducing are the expansion of urban services into a previously unserved or underserved area, the creation or extension of transportation links, or the removal of major obstacles to growth. It is important to note that these direct forms of growth have secondary effects of expanding the size of local markets and attracting additional economic activity to the area.

Typically, the growth-inducing potential of a project would be considered significant if it stimulates population growth or a population concentration above what is assumed in local and regional land use plans, or in projections made by regional planning authorities such as the Sacramento Area Council of Governments (SACOG). Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those anticipated by local or regional plans and policies.

The Proposed Project would provide a reliable source of natural gas to the metropolitan region of Sacramento in the event of a disruption of service from the Pacific Gas and Electric (PG&E) supply pipelines 400/401 that serve the area. No new natural gas supply would be made available as a result of the Proposed Project.

Potential growth-inducing impacts of the Proposed Project could be manifested in two fundamental ways:

- Growth could result from the direct and indirect employment required to construct and operate the Proposed Project.
- Growth could result from the additional natural gas storage provided by the Proposed Project.

Each of these possibilities is addressed in the following sections.

F.1.1 Growth Caused by Direct and Indirect Employment for Construction of the Proposed Project

As described in Section D.10, Population and Housing, the construction and operation of the Proposed Project itself would not affect the employment patterns in the area. Sacramento Natural Gas Storage (SNGS), LLC would employ approximately 150 to 200 workers throughout the maximum anticipated 9-month construction period. It is anticipated that approximately 70% of workers (105 to 140 employees) would come from the Sacramento area. Outside contractors for specialty construction activities would commute from outside of the area and would stay at existing local hotels during construction. There is an adequate supply of hotels and inns in the project area that could be used by out-of-town personnel.

Project operation and maintenance would require employing three new people and therefore, would have a negligible effect on population growth and demand for new housing.

F.1.2 Growth Related to Additional Natural Gas Storage

The need for additional natural gas storage in California is reflected in the Governor's Energy Policy as well as in policy statements of both the California Energy Commission and the California Public Utilities Commission (CPUC). In addition, Sacramento Municipal Utility District (SMUD) has identified the need for additional natural gas storage to maintain reliable electric service and to prevent extended outages and disruption of service for existing customers in the Sacramento metropolitan area. While the project would create additional storage of natural gas and more reliable infrastructure, it would not extend infrastructure to previously unserved areas. No additional capacity to provide natural gas is proposed as part of the project; therefore, the Proposed Project would not provide infrastructure or service capacity that could accommodate growth levels beyond those anticipated by local or regional plans and policies.

In addition, the Proposed Project would not modify land use or zoning designations to permit new residential or commercial development and, therefore, would not foster growth, remove direct growth constraints, nor add direct stimulus to growth.

F.2 Significant Irreversible Environmental Changes

CEQA Guidelines (Section 15126.2(c)) require that an Environmental Impact Report (EIR) identify significant irreversible environmental changes that would be caused by the Proposed Project. These changes may include, for example, uses of nonrenewable resources as well as project accidents that could change the environment in the long term.

Development of the SNGS Facility would require a permanent commitment of natural resources resulting from the direct consumption of fossil fuels, construction materials, the manufacture of new equipment that largely cannot be recycled at the end of the project's useful lifetime, and energy required for the production of materials.

F.3 Significant Environmental Effects That Cannot be Avoided

CEQA Guidelines (Section 15126.2(b)) require a discussion of any significant impacts that cannot be reduced to levels of insignificance. As discussed in Section D.6, Hazardous Materials, Public Health and Safety, the potential for hazards, such as release of natural gas and/or potential rupture of the proposed pipeline resulting in fire, explosion, and release of toxic substance, is low. Mitigation measures outlined in Section D.6 further reduce the potential for occurrence, but not to less-than-significant levels (Class I).

As discussed in Section D.7.3.3, Hydrology and Water Quality Impact Analysis, an analysis by Golder Associates (2008) of the cap rock integrity of the Florin Gas Field and the risk of release of gas due to failure of the cap rock is low given the increase in gas pressure. Although the likelihood of this occurrence is low, and mitigation is provided to reduce this impact, this impact is considered significant and unavoidable (Class I) because the duration of this impact and effectiveness of provided mitigation is not known.

Section D.9, Noise and Vibration, describes unavoidable impacts to nearby sensitive receptors due to well drilling at the wellhead site. Noise during drilling operations would produce noise levels up to 83 dBA at 50 feet and up to 71 dBA at the nearest receptor. This would exceed the City of Sacramento's noise standard and would be considered a significant and unavoidable impact. Implementation of Mitigation Measures N-1a through N-1e would reduce short-term construction and drilling-related noise impacts of the proposed wellhead; however, this impact may remain significant (Class I).

F.4 Cumulative Impacts

As required by CEQA Guidelines (Section 15130 et seq.), the proposed SNGS Facility is analyzed in relation to other projects in the area resulting in impacts that are considered to overlap or interact in a cumulative manner with the impacts of the Proposed Project. It is important to consider the combined effects of all past, present, and reasonably foreseeable future projects to determine the cumulative effect of these projects on the region because, even though a single project may have individually minor impacts, when considered together with other projects, the effects may be collectively significant. A cumulative impact, then, is the additive effect of all projects in the same geographic area. The project itself would have a significant

cumulative impact if the project's contribution to the overall significant cumulative effect is of a cumulatively considerable magnitude.

For the purposes of this cumulative impact analysis, a list of projects that are in the same immediate vicinity and are expected to be constructed during the same time period as the SNGS Facility has been used in accordance with CEQA Section 15130(b)(1). These projects and their approximate locations are shown in Table F-1. Projects that are completed, or are in operation, are considered part of current baseline conditions discussed by issue area in Section D. Analysis of cumulative impacts that may result due to these projects and evaluation of the Proposed Project's contribution to such impacts is presented below.

The projects in the cumulative scenario include a range of project types from residential to commercial developments, industrial warehouse projects, and infrastructure projects. Proposed and pending projects that would be within the Proposed Project area are presented. The list of projects provided in Table F-1 includes projects for which applications have been submitted as well as projects that may foreseeably have impacts that would cumulate with those of the Proposed Project and are included in general plans or other planning documents. Information provided in Table F-1 was gathered from an Internet search of local planning agencies, personal communication with planning staff of the City of Sacramento (Hockman, pers. comm. 2008), County of Sacramento (Alexandrou, pers. comm. 2008), Sacramento Housing and Redevelopment Agency, review of general and community plans of the affected jurisdictions, and habitat conservation plans.

This section presents the analysis of the potential for the Proposed Project to create cumulatively considerable effects when the impacts of projects listed in Table F-1 are considered together with the impacts of the Proposed Project. Sections are presented in the same order in which they appear in Section D.

F.4.1 Air Quality

Impact A-3 in Section D.2 addresses the cumulative air quality impacts of the Proposed Project. The impacts for criteria pollutants was determined to be less than significant and not cumulatively considerable.

As stated in Impact A-8 of Section D.2, the Proposed Project's contribution to state, national, and global greenhouse gas (GHG) emission inventories and the resultant effect on global climate should be evaluated on a cumulative basis. The Proposed Project would generate GHG emissions, which would contribute to potential cumulative impacts of GHG emissions on global climate.

Table F-1
Cumulative Scenario—Approved and Pending Projects

Project	Project Type	Project Description/Size	Project Location	Permitting Status/ Schedule
City of Sacramento				
Lemon Hill Apartments	Residential	Construction of 32 apartments on a 65,000-square-foot lot.	6130 Lemon Hill Avenue Sacramento	Utility Plan Technical Review
Lemon Bell 2	Residential	Subdivision of 25 lots, rezone on 3 acres.	Lemon Hill Avenue/Power Inn Road Sacramento	Planning Department Review
Phong Estates Tentative Map	Residential	Subdivision of 3 parcels into 12 lots on 2.2 acres.	5726 71st Street Sacramento	Awaiting Planning Department Review
Lemon Hill Vistas	Residential	Addition of 1 acre to project site.	6131 63rd Street Sacramento	Awaiting Planning Department (needs acoustical study)
Elder Creek Tentative Map	Residential	Subdivision of 1 lot into 12 lots.	6290 Elder Creek Road Sacramento	Environmental Review complete. Edits to TM and payment of fees required prior to scheduling CPC and CC hearings
Army Depot East Park Master Plan	Recreational	Construction of 5 baseball fields, passive park, jogging trail, picnic area, concession and restroom facilities, and scoreboard.	Okinawa Street/Marinas Avenue Sacramento	—
Army Depot West Park Master Plan	Recreational	Construction of 3 soccer fields, jogging trail, and parklands.	South of Park Avenue, north of Santa Cruz Street Sacramento	—
Fahrenheit	Retail	Construction of a 15,340-square-foot retail store on 0.48 acre.	7025 Elder Creek Road Sacramento	Planning Department Review
Liberty Plaza	Commercial	Merging of 4 lots into 1, to develop a 42,000-square-foot commercial center on 2.5 acres.	6331 Stockton Avenue Sacramento	—

Table F-1 (Continued)

Project	Project Type	Project Description/Size	Project Location	Permitting Status/ Schedule
FLTS Wood Recycling Center	Recycling operation—industrial	Construction of wood recycling operation.	5600 Foodlink Street (Army Depot) Sacramento	Application withdrawn by staff due to inactivity of applicant
Elder Creek Business Park	Industrial	Subdivision of 2 lots into 14 lots on 12.65 acres.	8651 Morrison Creek Drive Sacramento	TM Approved. Final Map Review
Construction of Water Main	Utility	Construction of large pipeline for City.	Along Power Inn Road Sacramento	2009 Est.
County of Sacramento				
Hanford on Stockton	Hotel	Splitting of 5.37 acres into 3 lots and construction of hotel.	Stockton Boulevard and Elsie Avenue County of Sacramento	Project closed
Florin Road Warehouse	Commercial and industrial	—	Florin Road east of Power Inn Road County of Sacramento	Pending
Hanson Pipe and Production	Industrial	Upgrade of existing facility.	Tokay Avenue north of Florin Road County of Sacramento	Project closed

Note: "—" indicates data is not applicable.

Sources: Alexandrou, pers. comm.. 2008;. City of Sacramento Permit Manager Application (http://www.cityofsacramento.org/dsd/reference/application-search/), County of Sacramento Planning Projects Viewer (http://www.planningdocuments.saccounty.net/)

According to Section 15130 of the CEQA Guidelines, an EIR must discuss cumulative impacts if a project would have a cumulatively considerable effect on a resource, where "cumulatively considerable" is defined as follows: "The incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." However, as Section 15064(h)(4) states, "the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the Proposed Project's incremental effects are cumulatively considerable." Therefore, the fact that the Proposed Project would result in emissions of GHGs (chiefly carbon dioxide), and that global GHG emissions contribute to the greenhouse effect and the resultant impacts on global climate, does not mean that the Proposed Project would have a cumulatively considerable impact on global climate. In the absence of adopted significance thresholds,[1] the potential contribution of the Proposed Project to this cumulative impact is evaluated under the following criterion: the project could impede or conflict with the emissions reduction targets and strategies prescribed in or developed to implement Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006.

A project's consistency with the implementing programs and regulations to achieve the statewide GHG emission reduction goals established under AB 32 cannot be evaluated explicitly because they are still under development. Nonetheless, the Climate Change Scoping Plan (Scoping Plan), approved by the California Air Resources Board (CARB) on December 11, 2008, includes recommended strategies and sector targets for implementation to meet the goals of AB 32 (CARB 2008). Accordingly, consistency with these strategies is assessed to determine if the Proposed Project's contribution to cumulative GHG emissions would be considerable.

The Scoping Plan recommends strategies that should be implemented by various state and local agencies to reduce GHG emissions. In addition, the Scoping Plan incorporates the CARB-approved list of early action measures that can be implemented by January 1, 2010. The Scoping Plan strategies and early action measures that are relevant to the Proposed Project's design features and operation, and that would be consistent with these strategies and measures, are listed in Tables F-2 and F-3. Based on the analysis in Tables F-2 and F-3, the Proposed Project would reduce its contribution to GHG emissions and its impact on global climate due to its consistency

[1] In June 2008, the Governor's Office of Planning and Research (OPR) issued a technical advisory regarding the analysis of GHG emissions in CEQA documents (see additional discussion in Section D.2.2.6.) The advisory did not recommend a specific threshold of significance, either quantitative or qualitative, leaving this to the lead agency's judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. The advisory also indicated that OPR had requested that CARB develop statewide significance thresholds. CARB is in the process of developing interim thresholds of significance that can be applied to industrial, residential, and commercial projects. While CARB has issued draft proposals, the technical approach to setting thresholds is being reevaluated.

with these strategies and measures. It should be noted that those project features in Tables F-2 and F-3 are not considered as Applicant Proposed Measures (APMs) or mitigation measures since these features are consistent with rules and regulations that are likely to be implemented before the project is implemented. In addition, the Proposed Project would incorporate other project features, such as electric-powered compressors and APMs (see Table D.2-7, APM 3(g) and 3(h)) that would result in lower fuel combustion emissions and other collateral benefits with respect to GHG emissions. As noted in Table D.2-13, the Proposed Project would also result in small increases in criteria pollutant emissions during operation. This suggests that the Proposed Project would result in a proportionately small increase in GHG emissions.

Table F-2
Project Features Consistent with Scoping Plan Strategies

Scoping Plan Strategy	Description of Strategy	Project Feature
Vehicle Climate Change Standards	As directed by AB 1493, CARB adopted vehicle standards that lowered GHG emissions to the maximum extent technologically feasible, beginning with the 2009 model year. As a backstop to the AB 1493 standards,[1] CARB may adopt a "feebate" that would require fees on the purchase of high-GHG-emitting vehicles, which would then be returned as rebates to buyers of low-GHG-emitting vehicles.	The Proposed Project would be consistent with this strategy to the extent that new passenger vehicles and light trucks are purchased by the project's operators and staff starting in the 2009 model year.[1]
Building Energy Efficiency Standards	This strategy will reduce GHG emissions, in part, through more stringent building codes and energy efficiency standards.	The Proposed Project will meet or exceed California energy standards or energy efficient lighting requirements in-place at the time of construction.

Source: California EPA 2006.

[1] The U.S. EPA has denied the waiver that would allow these standards to be implemented; however, the state has filed a lawsuit to overturn this decision and Senate Bill (SB) 2555, which would essentially bypass the U.S. EPA's decision and grant California the waiver. The implementation of these standards and the time schedule for the introduction of compliance passenger vehicles and light trucks are in question at this time.

Table F-3
Project Features Consistent with Early Action Measures[1]

Early Action Measure	Description of Early Action Measure	Project Feature
Low-Carbon Fuel Standard	Executive Order S-01-07, the Low Carbon Fuel Standard (LCFS) (issued on January 18, 2007), calls for a reduction of at least 10% in the "carbon intensity" of California's transportation fuels by 2020. LCFS will require fuel providers (including producers, importers, refiners, and blenders) to ensure that the mix of fuels they sell in California meets, on average, a declining standard for greenhouse gas emissions that result from the production and use of transportation fuel.	The Proposed Project would be consistent with this measure because motor vehicles driven by project workers would use compliant fuels in the future.

Table F-3 (Continued)

Early Action Measure	Description of Early Action Measure	Project Feature
"Do-it-Yourself" Automotive Refrigerants	Restrictions on "do-it-yourself" automotive refrigerants would restrict the use of High Global Warming Potential (GWP) refrigerants for non-professional recharging of leaky automotive air conditioning systems. The focus of this strategy is to eliminate the unnecessary releases of HFC-134a, a potent GHG used in motor vehicle air conditioning systems (MVACS) when cans are used to recharge leaky MVACS.	The Proposed Project would be consistent with this measure because the project's vehicles would be serviced by repair shops that capture and recycle automotive refrigerants.
Consumer Product Propellants	This strategy involves the reduction of high-GWP GHGs in consumer products when alternative formulations are available. Some high-GWP GHGs are used as propellants in many household items and other formulated consumer products.	The Proposed Project would be consistent with this measure because the project workers would use compliant consumer products.
Proper Tire Inflation	Properly inflated tires help reduce fuel consumption by reducing rolling resistance. Establishing a program to monitor and correct vehicle tire pressure would reduce California's fuel use by tens of millions of gallons, thus reducing CO_2 emissions.	The Proposed Project would be consistent with this measure because motor vehicles driven by project workers would maintain proper tire pressure to improve fuel economy and reduce GHG emissions.

[1] All early action measures are also incorporated in the Scoping Plan as recommended measures.

Operation of the Proposed Project would result in GHG emissions of approximately 2,500 metric tons per year (0.0025 million metric tons). Compared to the estimated GHG emissions for all sources in California (423 million metric tons, excluding out-of-state electrical generation) (CARB 2007), the Proposed Project's contribution to global climate change would be minor. Based on these estimates, the project would add approximately 0.0006% to California's GHG emissions inventory. As stated above, no quantitative emission thresholds or similar criteria have been established to evaluate the cumulative impact of a single project on global climate. However, given that California is currently emitting more GHGs than the target established by AB 32, all feasible mitigation measures should be used to achieve maximum GHG reductions. Nevertheless, as this impact may be cumulatively considerable, CPUC, as a member of the state's Climate Action Team will reduce the contribution from projects subject to Commission approval to the extent feasible.

The Scoping Plan identifies GHG reduction measures to be implemented by the oil and gas industry. One set of measures would reduce methane emissions in gas transmission processes from leaks. These measures would include improved leak detection, process modifications, equipment retrofits, installation of new equipment, and best management practices (BMPs). While details of these measures are not provided in the Scoping Plan, it refers to the technologies being implemented through the U.S. EPA's Natural Gas STAR program (U.S. EPA 2008). The Natural Gas STAR program is a voluntary partnership that encourages oil and natural gas companies to adopt cost effective technologies and practices that improve operational efficiency

and reduce emissions of methane. Therefore, Mitigation Measure C-1 is proposed to mitigate leaks and related losses of methane from the Proposed Project.

In addition, the Scoping Plan includes a strategy to increase the Renewables Portfolio Standard for all electrical generation to 33% by 2020. While not subject to the current mandate of 20% renewable energy sources by 2010 for investor-owned utilities under SB 107, SMUD has adopted a policy to provide 20% of its electricity from renewable sources by 2011. Renewable energy includes, but is not limited to, wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. In keeping with the targets under the Scoping Plan, Mitigation Measure C-2 is proposed to minimize the GHG emissions associated with electrical usage by the Proposed Project. With implementation of these mitigation measures and APMs and other mitigation measures identified in Section D.2, impacts to global climate change are not considered cumulatively considerable.

Mitigation Measure for Impact C-1: Potential for Greenhouse Gas Emissions (Methane Leakage)

C-1 SNGS, LLC shall participate in the U.S. EPA's Natural Gas STAR Program. A memorandum of understanding (MOU) with the U.S. EPA shall be signed prior to initial startup of the compressor station. Within 6 months after signing the MOU, SNGS, LLC shall prepare an implementation plan that includes BMPs identified by the Natural Gas STAR program for transmission and distribution facilities. The implementation plan shall incorporate Partner Reported Opportunities that cost-effectively reduce methane emissions. After one calendar year of participation in the program, SNGS, LLC shall submit an annual report documenting the previous year's emission-reduction activities and corresponding methane emission reductions. Copies of all documents shall be submitted to the CPUC.

Mitigation Measure for Impact C-2: Potential for Greenhouse Gas Emissions (Electrical Usage)

C-2 SNGS, LLC shall enter into an agreement with SMUD to provide a minimum of 50% of the electricity used by the compressor station from renewable energy sources by participation in SMUD's Greenergy Program. This is an existing program developed by SMUD that allows for SMUD customers to pay an additional fee for their electricity to allow for 50% of the electricity to be obtained from renewable resources. A copy of the agreement shall be provided to CPUC prior to the start of operation of the compressor station.

F.4.2 Biological Resources

Regional biological resources are becoming scarcer as growth and development continue within Sacramento County. Generally, the loss of habitat associated with the Proposed Project represents a cumulative, significant impact in a regional context, especially given the number of other projects proposed in the City of Sacramento. Many impacts to plant and animal species, such as special-status species under the protection of the Migratory Bird Treaty Act, State Species of Special Concern (SSC), and California Native Plant Society (CNPS) List 1B species, that are not considered significant on a project-specific basis may be cumulatively considerable when the sum of all the projects listed in Table F-1 are taken into account.

Implementation of the Proposed Project, combined with the other approved and pending projects in the cumulative baseline, would create the potential for cumulatively considerable and significant impacts to biological resources. These potentially cumulative significant impacts may include the loss of special-status plant species; impact to wetlands, including vernal pools and the associated fairy shrimp; loss of foraging habitat for raptors; and potential impacts to burrowing owls and the giant garter snake. Mitigation measures described in Section D.3, including Mitigation Measures B-1a through B-1f and B-3a and B-3b that preserve and provide for continued existence of sensitive biological resources and maintenance of natural diversity, and that reduce the project's impacts to less than significant for the Proposed Project. Similar mitigation measures that would be implemented to those projects in the cumulative list would reduce cumulative impacts to biological resources to a level that would be considered less than significant and not cumulatively considerable.

F.4.3 Cultural Resources

Construction of the SNGS Facility would not contribute to the potential loss of known significant cultural resources. However, construction of the Proposed Project may contribute to the potential loss of undiscovered significant cultural resources. Many of the projects listed in Table F-1 are proposed in areas known to contain cultural resources. Development of the Proposed Project, in conjunction with these other projects, would require excavation activities that have the potential to disturb undiscovered cultural resources. When viewed cumulatively, these projects could result in a significant impact to cultural resources. With proper environmental planning and appropriate mitigation, the Proposed Project is expected to successfully preserve significant cultural resources if present, and can provide opportunities for increasing our understanding of past environmental conditions and cultural history. Therefore, the mitigation measures identified for the project's impacts would reduce the Proposed Project's cumulative impacts to cultural resources to a level that would be considered less than significant and not cumulatively considerable.

F.4.4 Geology and Soils

Potential cumulative geologic and soil impacts (considering all proposed and in-progress development in the project area) consist of the creation of erosion potential and potential impact to paleontological resources. Seismic impacts (ground shaking or ground failure) are not cumulative. Surface disturbance associated with construction and drilling at the wellhead and compressor station sites would contribute to erosion, soil compaction, and soil loss in the project vicinity. Pipeline installation activities would also result in ground disturbance and potential for erosion. This surface disturbance would primarily be associated with construction activities and would be temporary and mitigated through effective erosion control measures included as part of the project. Similarly, each of the other projects listed in Table F-1 would potentially impact soil loss in the project area. Mitigation measures that would minimize construction-related impacts caused by the Proposed Project would minimize the cumulative effects of these impacts to a level that would be less than significant and not cumulatively considerable.

F.4.5 Hazardous Materials, Public Health and Safety

As discussed in Section D.6, Hazardous Materials, Public Health and Safety, a site assessment was conducted for the Proposed Project that identified hazardous materials in the study area (see Appendix B, System Safety and Risk of Upset). Construction of the project, as well as other projects proposed in the study area, could increase the opportunity and likelihood for exposure of people to hazardous materials or health risks associated with the disturbance of hazardous materials. It is anticipated that adherence to applicable federal, state, and county laws and regulations associated with other projects in the area will reduce the cumulative risk of adverse public health effects associated with the use, storage, and transport of hazardous materials to less than significant.

Implementation of the Proposed Project would place additional pipelines and other facilities, including a compressor station and wellhead site, in the project area. There is a potential that a leak or rupture of these facilities may result in fire or explosion that could result in mortality to people near the facilities. In addition, there is a potential that natural gas could migrate through the rock cap and impact the area. This potential is remote. A number of mitigation measures are identified in Section D.6 that will reduce the potential of occurrence but not the consequence of these impacts. Therefore, this cumulative impact is considered significant and cumulatively considerable.

F.4.6 Hydrology and Water Quality

Future and proposed construction projects in close proximity to the Proposed Project could result in cumulative hydrologic impacts on the study area. There is the possibility of a variety of

projects within the study area. The pollutants generated from construction of these projects could result in a significant cumulative impact on water quality if the construction work occurs in close proximity and at the same time as the Proposed Project. This would include the disturbance of sediments that could reach surface water and groundwater. Mitigation measures identified for the Proposed Project would reduce the Proposed Project's cumulative impacts to hydrology and water quality to a level that would be less than significant and not cumulatively considerable.

Implementation of the Proposed Project would store natural gas at a greater pressure than the former pressure in the Florin Gas field. There is a remote but potential possibility that natural gas could migrate into the aquifers used for drinking water supplies. This impact could be cumulatively considerable to the water supply, since use of water sampling and remediation may not reduce this impact to less-than-significant levels.

F.4.7 Land Use, Agriculture, and Recreational Resources

Other projects proposed for areas in proximity to the SNGS Facility would have the same land use and recreation concerns in terms of on-site land-use displacement; compatibility of land uses internal to each project; and project consistency with applicable land-use policies, designations, and zoning. The potential for the Proposed Project to result in cumulative land use and/or recreation impacts would be limited to disruptions during construction activities for the Proposed Project.

The construction for the Proposed Project, combined with any planned expansion of the study area roadways and utility projects, may create significant short-term construction-related cumulative impacts to existing land uses (e.g., residences and industrial uses adjacent to study area roads and public facilities within study area roads). It is anticipated that cumulative impacts to existing land uses resulting from ongoing development can be mitigated to a less-than-significant level at the individual project level by incorporating mitigation measures as described in Section D.8 of this EIR, including providing construction notification, minimizing construction disturbance, and providing a public liaison and information hotline. Additional mitigation measures are described to mitigate impacts to air, noise/vibration, public services/utilities, traffic, and visual resources in Sections D.2, D.9, D.11, D.12, and D.13, respectively. These measures would reduce the Proposed Project's cumulative construction impacts to a level that would be considered less than significant and not cumulatively considerable. These measures will also ensure that ongoing development will comply with all appropriate design guidelines and that planned improvements, construction scheduling, and maintenance/operation activities will be precisely identified, to ensure that ongoing development does not conflict with existing and/or planned land uses within the study area.

F.4.8 Noise and Vibration

Potential adverse noise impacts during construction of the Proposed Project would be localized and would occur intermittently for varying periods of time throughout the estimated 9-month construction period. Short-term cumulative impacts related to ambient noise levels could occur if construction associated with the Proposed Project modifications as well as surrounding current and future development (see Table F-1) would occur simultaneously. Noise associated with construction of the Proposed Project in combination with other nearby projects could adversely impact residents in the vicinity of Power Inn Road. The severity of the short-term cumulative impacts cannot be determined at this time because it is not certain that any of the projects would proceed simultaneously. Considering, however, that sensitive receptors such as residences are located near the wellhead site, any simultaneous construction of the projects could create a significant short-term cumulative impact. Short-term impacts from construction noise can be reduced by limiting construction activities according to local noise ordinances as described in Section D.9 of this EIR. However, this measure would not reduce the Proposed Project's cumulative construction impacts (specifically, well drilling) to a level that would be less than significant. Providing advanced notice of construction and a public liaison to minimize construction noise nuisances would further minimize noise impacts due to short-term well drilling. However, short-term construction noise impacts are considered significant and cumulatively considerable.

Operations at the wellhead and compressor station sites are not expected to be above daytime ambient noise levels in the project area and/or in excess of standards in the local noise ordinances for adjacent properties. Therefore, in the absence of significant impacts, incremental accumulation of significant effects due to the Proposed Project would not occur upon completion of project construction.

F.4.9 Population and Housing

As discussed in Section D.10, Population and Housing, the Proposed Project would not require the removal of any existing housing units or displacement of any persons, and would have no effect on population growth in the area. Section F.1, Growth-Inducing Effects, provides a more detailed discussion of growth inducement related to the Proposed Project. In the absence of impacts to population and housing, incremental accumulation of effects to population and housing would not occur.

F.4.10 Public Services and Utilities

The Proposed Project would not create additional population growth and would have less-than-significant demands on public utilities. Construction of cumulative projects identified in Table

F-1, when combined with the Proposed Project, could disrupt utility systems. As discussed in Section D.11, Public Services and Utilities, with implementation of Mitigation Measures U-1a through U-1e, which require the applicant to contact Underground Service Alert prior to construction and to notify the public of disruptions and coordination with affected jurisdictional departments and utilities in conjunction with final design, the portion of utility disruption impacts from the Proposed Project would not be cumulatively considerable.

As discussed in Section D.6, Hazardous Materials, Public Health and Safety, implementation of the project could result in increased hazards and the need for emergency services, including fire and police. By incorporating mitigation measures listed in Section D.11, Public Services and Utilities, including U-2, U-3, and APM 9, the emergency response plan, and APM 16, the bore plan and frac-out contingency plan would reduce the Proposed Project's cumulative impacts to public services to a level that would be considered less than significant and not cumulatively considerable.

F.4.11 Transportation and Traffic

As discussed in Section D.12, Transportation and Traffic, construction of the Proposed Project would contribute to short-term impacts to traffic circulation on local roadways. Significant cumulative traffic circulation impacts could result over the short term if future and proposed projects presented in Table F-1 were under construction simultaneously and in the same general location. Short-term traffic impacts caused by construction of the projects proposed within the study area would result from street closures, increased truck traffic, and disruption of local traffic to residences and businesses. The severity of the short-term impacts cannot be determined at this time because it is not certain that any of the projects would proceed simultaneously. It is anticipated that short-term impacts to project area roads can be mitigated to a level of less than significant by incorporating mitigation measures as described in Section D.12 of this EIR, including using construction techniques such as restriction of hours, preparation and implementation of a traffic control plan (TCP), and reconstruction of affected streets to previous conditions. These measures will ensure that affected roadways will be restored to previous conditions, that access will be maintained to individual properties and businesses, that emergency access will not be restricted, and that congestion and delay of traffic resulting from ongoing development are not substantially increased and will be short term in nature in accordance with each jurisdiction's traffic control and engineering guidelines. These measures would reduce the Proposed Project's cumulative construction impacts to a level that would be less than significant and not cumulatively considerable.

The operation of the Proposed Project would generate minimal traffic, only that required for routine patrolling and maintenance. Therefore, the project would not contribute to long-term cumulative impacts to traffic.

F.4.12 Visual Resources

Cumulative impacts to visual resources would occur where project facilities would be viewed in combination with other past, present, and future developments. The significance of cumulative visual impacts would depend upon a number of factors, including the degree to which:

- The viewshed is altered
- Visibility to scenic resources is impaired due to either view obstructions or direct impacts to scenic resource features
- The project's visual contrast or dominance is increased due to changes in the viewed environment.

To the extent that the Proposed Project would be visible during construction along with one or more of the cumulative projects, adverse cumulative impacts may occur from the construction equipment, vehicles, materials, staging areas, and personnel. These construction impacts, however, would be temporary and would not create significant cumulative effects.

The proposed new wellhead site and compressor station sites would not have adverse visual effects. In the absence of visual impacts, incremental accumulation of effects to visual resources would not occur due to development of the proposed SNGS Facility.

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