Attachment A

Sacramento Natural Gas Storage Project
CPUC CEQA Findings of Fact
Proceeding No. A.07-04-013

CPUC CEQA Findings of Fact

Regarding the Final Environmental Impact Report for the
Sacramento Natural Gas Storage Project
State Clearinghouse Number 2007112089
Proceeding Number A.07-04-013

I. Certification

The California Public Utilities Commission (CPUC or Commission) hereby certifies the Sacramento Natural Gas Storage (SNGS) Project Final Environmental Impact Report (EIR), which consists of the original Draft EIR (April 2009) as revised in the Final EIR (June 2010) and Addendum to the Final EIR (July 2011) (State Clearinghouse Number 2007112089). In accordance with California Environmental Quality Act (CEQA) Guidelines Section 15090, the CPUC, as the California Lead Agency for the project, certifies that:

(1) The Final EIR has been completed in compliance with CEQA;
(2) The Final EIR and Addendum to the Final EIR were presented to the Commission, and the Commission has received, reviewed, and considered the information contained in the Final EIR and Addendum to the Final EIR, and hearing documents prior to approving the Project; and
(3) The Final EIR reflects the CPUC's independent judgment and analysis.

The CPUC has exercised independent judgment in accordance with California Public Resources Code (PRC), Section 21082.1(c)[1] in retaining its own environmental consultant and directing the consultant in preparation of the EIR, as well as reviewing, analyzing, and revising material prepared by the consultant.

CEQA Guidelines Sections 15120 through 15132 require the EIR to contain specific information. The various elements of the EIR satisfy these CEQA requirements.

Volume 1 of the Final EIR contains the comments and recommendations received on the Draft EIR, individual responses to these comments, and a list of persons, organizations, and public agencies commenting on the Draft EIR. Volume 2 of the Final EIR consists of the Draft EIR, revised in response to comments and other information received. The Addendum clarifies the Final EIR but does not identify any new significant environmental effects or make any revisions that increase the severity of previously identified significant effects.

[1] California Public Resources Code, Section 21000–21177. California Environmental Quality Act, as amended.

The CPUC finds that the EIR is a comprehensive, detailed, and complete document that discusses clearly the advantages and disadvantages of the environmentally superior alternatives, the Proposed Project, and other alternatives.

The CPUC finds that the EIR is a competent and comprehensive informational tool, as CEQA requires it to be. The quality of the information in the EIR is such that we are confident of its accuracy. We have considered the information in the EIR in approving the Proposed Project. Accordingly, we certify and adopt the EIR it in its entirety, and incorporate it by reference in this decision.

The Commission may not approve or carry out a project for which an EIR has been certified that identifies one or more significant effects on the environment that would occur if the project were approved or carried out unless we make one or more specific findings with respect to each significant effect, and those findings must be supported by substantial evidence in the record.

In accordance with PRC Section 21081 and CEQA Guidelines Section 15091[2], the Commission has made one or more specific written findings regarding significant impacts associated with the project. These findings are presented below, along with the rationale behind each of the findings. Concurrent with the adoption of these findings, the Commission adopts the Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) as presented in the Final EIR (provided in Section G of the Final EIR).

The documents and other materials that constitute the record of proceedings on which the project findings are based are located at the CPUC's office: 505 Van Ness Avenue, San Francisco, California 94102. The custodian of these documents is the Energy Division, CEQA Unit. This information is provided in compliance with PRC Section 21081.6(a)(2) and 14 California Code of Regulations (CCR) Section 15091(e).

II. Project Background

II.1 Project Description Summary

SNGS, LLC submitted an application (Application No. 07-04-013) and a Proponent's Environmental Assessment (PEA) on April 9, 2007, for the SNGS Facility. The purpose of the application is to obtain a Certificate of Public Convenience and Necessity (CPCN) from the CPUC. A supplement to the original application and PEA was submitted on July 16, 2007. Additionally, an amendment to the application and PEA was submitted on October 9, 2007. This amendment included the addition of the Yolo County interconnect with Pacific Gas and Electric (PG&E) Line 172 in Yolo County and construction of a metering station in the City of West

[2] 14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

Sacramento. On September 12, 2008, SNGS, LLC filed a second amendment, which withdrew its proposal to include the Yolo County interconnect and metering station.

As discussed in Final EIR Section B, Description of Proposed Project, as proposed by SNGS, LLC, the SNGS Project (or Proposed Project) would use a depleted natural gas reservoir (Florin Gas Field) located within the City of Sacramento and partially within and adjacent to an unincorporated area of the County of Sacramento to store up to 7.5 billion cubic feet (bcf) of working natural gas. The Proposed Project includes the existing underground natural gas storage reservoir, a wellhead site, a compressor station, a buried 16-inch interconnection pipeline between the wellhead and compressor site, and a buried 16-inch interconnection pipeline between the compressor site and Sacramento Municipal Utilities District (SMUD) Line 700. Please refer to Final EIR Section B, Description of Proposed Project, for additional details regarding the project.

The Proposed Project would store up to 7.5 bcf of working natural gas in the depleted Florin Gas Field reservoir, which is situated approximately 3,800 feet below the ground surface. Natural gas was previously extracted from the Florin Gas Field by Proctor and Gamble, Vendada National, TXO Production Corporation, and Union Oil Company until 1987 when the natural gas supply was depleted. Shortly thereafter, the wells and appurtenance facilities were capped and abandoned in accordance with regulations set forth by the California Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR) because there was no additional use for the wells.

The Florin Gas Field is centered at the corner of Power Inn Road and Wagon Trail Way in the City of Sacramento. Approximately 43% of the field is in the City of Sacramento and 57% is located in Sacramento County. The wellhead site, compressor station, and associated interconnecting pipelines would be situated within the City of Sacramento. The wellhead site would be located at the northeast corner of the intersection of Junipero Street and Power Inn Road; the compressor station would be located north of the wellhead site on the historic Sacramento Army Depot that is known as Depot Park.

II.2 Project Objectives/Purpose and Need

CEQA Guidelines (Section 15126.6(a)) requires that project objectives be set forth in an EIR in order to help define alternatives to the Proposed Project that meet most of the basic project objectives. SNGS, LLC lists the following basic objectives of the Proposed Project (see Final EIR Section A.2.2, Statement of Objectives**)**:

Provide strategically located natural gas storage in California.

Provide a secure and reliable gas supply for the Sacramento metropolitan area in the event of a disruption of service from the main supply pipeline that services the area.

Satisfy SMUD's natural gas storage needs to specifically provide a fuel supply to power their electrical generating plants. The total volumetric capacity available to SMUD under its Storage Service Agreement with SNGS, LLC is 4.0 bcf, which yields approximately a 30-day supply.

III. Environmental Review Process and the EIR

The CEQA environmental review process for the SNGS Project began with the CPUC's issuance of the Notice of Preparation (NOP) of an EIR in November 2007 and led to the finalization of an EIR in 2010. The public involvement milestones include the following:

- The CPUC issued the NOP on November 16, 2007, and distributed it to the State Clearinghouse (SCH No. 2007112089) and federal, state, and local trustees and agencies that may be affected by the Proposed Project. Public notification of the NOP included direct agency and public notification, a newspaper announcement, and posting on the project website: http://www.cpuc.ca.gov/environment/info/dudek/sngs/SNGS_Home.htm.
- The NOP was sent to 62 federal, state, and local agencies, five Native American groups, three local libraries, as well as Yolo County, the City of Sacramento, and the County of Sacramento. A copy of the NOP may be viewed on the project's website. Public notification was sent to over 760 stakeholders.
- One public scoping meeting was held in December 2007 prior to the selection of alternatives and the preparation of the analysis documented in the Final EIR. The scoping meeting was held at the Conference Center at Depot Park, 8215 Ferguson Street, Sacramento, California. Approximately 24 persons attended the scoping meeting, including representatives from local and state agencies, organizations, and private citizens.
- In total, nine letters were received from public agencies and individuals during the NOP scoping period (November 16 to December 17, 2007) and six individuals provided comments during the scoping meeting. In December 2007, a Scoping Report was issued summarizing comments received.
- In April 2009, the Notice of Availability (NOA) of the Draft EIR was mailed to over 1,300 interested parties, federal and state agencies, local jurisdictions, regional and local agencies, Native Americans, attorneys, and property owners adjacent to the Proposed Project's alignment as well as those adjacent to identified project alternatives. The NOA included information on how to gain access to the Draft EIR; information on the Proposed Project; the date, time, and location for the informational meeting on the Draft EIR and the CPUC's public participation hearing; and how to comment on the Draft EIR.
- The CPUC issued the Draft EIR on April 8, 2009, including an analysis of impacts in 12 environmental disciplines, and an evaluation of alternatives to the Proposed Project, including the No Project Alternative. Copies of the full Draft EIR and appendices were sent to 25 interested parties and agencies, including three local libraries used as document repositories. Seventy-seven copies of the Executive Summary with CDs with the text of the Draft EIR were also sent to interested parties and agencies. The public comment period for

the Draft EIR was schedule to end May 25, 2009, but was extended to June 22, 2009, allowing interested parties extra time to provide comments on the Proposed Project.

- The NOA was also provided to the *Sacramento Bee* newspaper and was printed at the beginning of the public review on April 8, 2009.
- An informational meeting was held on April 28, 2009, at the Conference Center at Depot Park, 8215 Ferguson Street, Sacramento, California. Twelve members of the public, including representatives of organizations and government agencies, were documented in attendance at the informational meeting. Following the informational meeting on the Draft EIR, the CPUC held a public participation hearing to record comments on the Proposed Project, including the Draft EIR.
- A second public participation hearing was held on October 27, 2009. Forty-five members of the public commented on the Proposed Project, including the Draft EIR.
- The Final EIR was published in June 2010.
- The Addendum to the Final EIR was prepared in July 2011.

IV. Environmental Impacts and Findings

PRC Section 21081 states that no public agency shall approve or carry out a project for which an EIR has been completed that identifies one or more significant effects on the environment unless the public agency makes one or more of the following findings:

(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment.

(2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

Pursuant to PRC Section 21081 and CEQA Guidelines Section 15091, the Commission has made one or more of these specific written findings regarding significant impacts associated with the Proposed Project. Such findings are made in Sections IV.2 and IV.3 of these CEQA Findings of Fact. The environmental impacts and findings presented herein consist of those determinations within the published Draft and Final EIRs.

The EIR evaluation included a detailed analysis of impacts in 12 environmental disciplines, analyzing the project and seven alternatives, including three alternative gas field locations, three pipeline alignment alternatives, and the No Project Alternative. The EIR discloses the environmental impacts expected to occur from construction and operation of the SNGS Project.

Where feasible, mitigation measures were identified to minimize or avoid significant environmental effects. In addition, SNGS, LLC proposes certain measures as part of the Proposed Project to reduce the direct and indirect impacts that would result from project activities. These measures, referred to as Applicant Proposed Measures (APMs) are provided in Section B.7 (Table B-5, Applicant Proposed Measures for Proposed Project) of the Final EIR. The resource/issue area analysis of the EIR assumed the APMs to be part of the project. APMs are discussed below in the findings for each applicable environmental impact.

IV.1 Environmental Impacts Found to be Less Than Significant

Based on the issue area assessments in the EIR, the Commission determines that the project will have no impact or less-than-significant impacts for several resources/issues as summarized in the table below. The rationale for the conclusion that no significant impacts or less-than-significant impacts would occur in each of the resource/issue areas in the table is based on the detailed discussion of these impacts in the issue area analyses in Section D of the Draft EIR and Final EIR as clarified by the Addendum to the Final EIR. Some of the resource/issue areas in the below table have multiple impacts. While the below table shows impacts that are less than significant, Sections IV and V of these CEQA Finding of Fact should be read in concert to understand the full range of impacts, or lack thereof, within a resource/issue area.

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
Air Quality	A-1: Conflict with or Obstruct Implementation of the Applicable Air Quality Plan	Construction emissions are generally accounted for in the air quality plans for the Sacramento region and considered short-term. While the Proposed Project would not be specifically accounted for in the regional emissions inventory, its construction emissions are well within the estimated emissions for the construction equipment category. Furthermore, regional measures for reducing off-road emissions include the use of financial incentives to accelerate voluntary retirement or retrofit of older, high-emitting equipment, resulting in reduced off-road emissions. The Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan, and this impact would be less than significant. (See Final EIR, pp. D.2-21 to D.2-22.)
	A-3: Create a Cumulatively Considerable Net Increase of a Criteria Pollutant for Which the Region is in Nonattainment Under Applicable Federal or State Ambient Air Quality Standards (Including Releasing Emissions that Exceed Quantitative Thresholds for Ozone Precursors)	As discussed under Impact A-2, the construction and operational emissions associated with the Proposed Project, after mitigation, would not exceed the recommended thresholds of significance. Because the SVAB is in nonattainment for the state and federal O3 and PM10 standards, a project that creates individually significant air quality impacts would also be considered to create cumulatively significant air quality impacts. However, the Proposed Project, with application of the mitigation measure for NOx construction emissions, would have less-than-significant impacts individually, as discussed under Impact A-3. When evaluated together with the other criteria discussed above, the Proposed Project would have less-than-significant cumulative impacts. (See Final EIR, pp. D.2-29 to D.2-30.)
	A-4: Expose Sensitive Receptors to Substantial Pollutant Concentrations	The health effects due to toxic air contaminants (TAC) emissions from operation of the project would be less than the SMAQMD thresholds. Therefore, the impacts would be less than significant. (See Final EIR, pp. D.2-30 to D.2-32.)
	A-5: Create Objectionable Odors Affecting a Substantial Number of People	An odorant (methyl mercaptan) would be added to the natural gas at the compressor station before injecting it into the storage field. Under normal circumstances, aboveground piping would be maintained to minimize leakage of odorized gas. The compressor station's valves, flanges, and other piping components would be monitored for leaks by operations personnel as part of the day-to-day operation of the facility. SNGS, LLC would provide incident, quarterly and annual reports to the CPUC in accordance with CPUC Rule 112-E, Subpart B. Additional description of leak monitoring, response, and reporting is found in Final EIR Section B.5. While not currently applicable to the Proposed Project, the SMAQMD, as a potential control measure listed in the 2006 SRNA 8-Hour Ozone Rate-of-Progress Plan (El Dorado County Air Quality Management District et al. 2006), has committed to adopt Rule 461, which would regulate fugitive emissions from equipment leaks in valves, pumps, compressors, pressure relief devices, flanges, and threaded connections at gas wells and associated transmission systems. If adopted, the proposed control measure would establish inspection and repair requirements for leaking components. It should also be noted that in the case of odors resulting from methyl mercaptan, this odorizing agent provides a warning that a gas leak has occurred and that impacted persons should evacuate

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
		the area. As a result, odors associated with methyl mercaptan would not be considered an adverse impact. Based on the discussion above, odor impacts due to leakage of natural gas would be less than significant. (See Final EIR, pp. D.2-32 to D.2-34.)
	A-6: Compliance with Applicable District, State, and Federal Air Quality Rules and Regulations	SNGS, LLC must demonstrate compliance with all applicable rules and regulations and would continue to maintain compliance during the operation of the Proposed Project. Therefore, this impact is less than significant. (See Final EIR, p. D.2-34.)
	A-7: Compliance with EPA General and Transportation Conformity Regulations	The construction emissions would be less than the de minimis thresholds. Therefore, a general conformity determination by the ACOE would not be required, and this impact would be considered less than significant. (See Final EIR, pp. D.2-34 to D.2-36.)
	A-8: Potential to Impede or Conflict with the Emissions Reduction Targets and Strategies Prescribed in or Developed to Implement AB 32	While the Proposed Project would result in emissions of GHGs, no adopted guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally the case that an individual project of this size is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. Thus, GHG impacts from a project are recognized as exclusively cumulative impacts; there are no noncumulative GHG emission impacts from a climate change perspective (See Final EIR, pp. D.2-36 to D.2-38.) Further discussion of the project's GHG emissions and their impact on global climate are addressed in Final EIR Section F.4, Cumulative Impacts. (See Final EIR, pp. F-4 to F-10.)
Biological Resources	B-4: Impacts to Wildlife Movement or Corridors	Construction of the proposed pipeline would tunnel under Morrison Creek using HDD. Morrison Creek is a potential wildlife movement corridor. There may be short-term disturbances to this corridor. However, the level of disturbance is considered low due to its temporary nature, therefore, this impact is considered less than significant. No impacts to fish habitat are expected. The proposed compressor station and wellhead site are not considered to be located in movement corridors. Therefore, no impact will be associated with those components. (See Final EIR, p. D.3-39.)
	B-5: Conflicts with Regional Habitat Conservation Planning Efforts	A portion of the Proposed Project within the unincorporated portion of Sacramento County is located within the South Sacramento HCP. The activities of the Proposed Project would mainly be in the vicinity of the Urban Services Boundaries of the plan. No resources of concern occur in here because the area is urbanized. Because this portion of the project is in an urban area, the impact is considered less than significant. (See Final EIR, p. D.3-39.)
	B-6: Conflict with any Local Policies or Ordinances Protecting Biological Resources, Such as a Tree Preservation Policy or Ordinance.	Implementation of the Proposed Project would not impact any of the trees in the area so there would be no conflict with the City of Sacramento Tree Preservation Ordinance, therefore, no impact would occur.

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
Cultural Resources	C-1: Construction Could Affect Known Cultural Resources	The project components were surveyed for cultural resources. No sites were found; therefore, no impact to known cultural resources would occur. The compressor station site is located within the former Sacramento Army Depot. Development of the proposed compressor station would not impact any structures and therefore, would not impact any historical features of the former Army Depot. The pipeline would align through portions of the former Sacramento Army Depot. The potentially historic UPRR alignment (also both the Southern Pacific and Western Pacific alignments) parallel this alignment. It would be crossed through horizontal directional drilling (HDD) and will not be significantly impacted. The spur line into the former Army Depot will be crossed; however, this is not considered historic. No impact to any structures of the former Army Depot would occur. (See Final EIR, p. D.4-12.)
	C-3: Future Maintenance Operations Could Affect Cultural Resource	As no cultural resources have been identified within the wellhead site and compressor station perimeters, as well as within the connecting pipeline segments right-of-way, no impacts to cultural resources would occur due to future maintenance operations. (See Final EIR, p. D.4-15.)
Geology and Soils	G-1: Risk to People or Structures within a Known Alquist-Priolo Earthquake Fault Zone	No known or suspected faults appear to cross the Proposed Project area. The Proposed Project would not expose people or structures to potential substantial adverse effects due to rupture of a known Alquist-Priolo earthquake fault. Therefore, people and structures would not be at risk and no impact would occur. (See Final EIR, pp. D.5-17 to D.5-18.)
	G-2:Exposure of People or Structures to Strong Seismic Ground Shaking (natural gas field)	Although strong seismic ground shaking could result in gas migration along an active fault line, no fault-related structures have been identified within the project area. The nearest active faulting, Dunnigan Hills Fault, is located approximately 19 miles to the northwest. In addition, experienced California Reservoir Engineers indicate that the reservoir has demonstrated its ability to successfully contain natural gas for millions of years. Moreover, the observed abrupt lateral changes in subsurface lithology (sand/shale contact) have been attributed to stratigraphic variation as opposed to structural-fault-related causes. The Proposed Project would not expose people or structures to potential substantial adverse effects due to strong seismic ground shaking; thus, impacts would be less than significant. (See Final EIR, pp. D.5-18 to D.5-19.)
	G-3: Seismically Induced Ground Failures, Including Liquefaction, Lateral Spreading, and Seismic Slope Instability	Neither the wellhead site nor compressor station site is located within an area which the State of California has designated as a Seismic Hazard Zone for Liquefaction and/or Slope Instability (California Geological Survey 2002b). In addition, based on the site-specific data collected and soils laboratory testing, the potential for liquefaction is considered remote. Since the potential for liquefaction is considered remote, the project components would not expose people or structures to potential substantial adverse effects due to seismic-related ground failure, including liquefaction. Therefore, impacts would be less than significant. (See Final EIR, pp. D.5-19 to D.5-20.)

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
	G-4: Slope Instability, Including Landslides, Earth Flows, and Debris Flows	Since there are no hillsides or slopes that could become unstable or over-steepened, land sliding is not considered a potential hazard. The Proposed Project would not expose people or structures to potential substantial adverse effects due to landslides; therefore, there would be no impact. (See Final EIR, p. D.5-20.)
	G-5: Soils that Could Damage Foundations or Have High Erosion Potential	The construction of the wellhead site, compressor station, and pipelines would result in earth-disturbing activities, but loss of topsoil due to erosion is not expected to be significant due to the flat topography. With implementation of APMs 1, 2, and 14, the Proposed Project would not result in substantial soil erosion or the loss of topsoil; therefore, impacts would be less than significant. (See Final EIR, pp. D.5-20 to D.5-21.)
	G-6: Geologic Unit that Could Become Unstable	There are no hillsides or slopes at or near the Proposed Project area that could become unstable or over-steepened. In addition, the project components are not located on a geologic unit or soil that is unstable, or that could result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse; thus, there would be no impact. (See Final EIR, p. D.5-21.)
	G-7: Expansive Soils	The results of the subsurface geotechnical soils investigation from data collected by advancing soil borings indicates the presence of lean clays explored in the compressor facility area as well as in the area of the wellhead site. The potential for expansive soil may exist at each location, but can be mitigated, if present, by the application of proper engineering design to meet CBC and Natural Gas Pipeline Safety Act (49 U.S.C. 1671–1686) requirements. With implementation of APM 4, the Proposed Project would not result in the creation of substantial risks to life or property due to the presence of expansive soils; therefore, impacts would be less than significant. (See Final EIR, p. D.5-21.)
	G-8: Adequacy of Soils to Support Septic/Wastewater Systems No Impact	The project does not propose a septic or new wastewater system for any of the project components. The toilets at the wellhead site and compressor station would be connected to the existing wastewater system. Therefore, there would be no impact. (See Final EIR, p. D.5-21.)
Hazardous Materials, Public health and Safety	HAZ-1c: Use, Transportation, and Storage of Methyl Mercaptan	The methyl mercaptan will be stored at the compressor station in a structure designed for that purpose. Because the compressor station is located in an industrial area away from the general public and because the methyl mercaptan will be contained within the specially designed compressor station structure, the impact associated with a release of stored material at the site is considered less than significant. (See Final EIR, p. D.6-19.)
	HAZ-3: Potential for the Project to Emit Hazardous Emissions or Handle Acutely Hazardous Waste within 0.25 Mile of an Existing or Proposed School	No schools are within 0.25 mile of the pipelines, compressor station, and wellhead site. In addition, no school sites are located above the projected boundaries of the limits of the Florin Gas Field. Therefore, the impact would be considered less than significant. It is not expected that gas would migrate to that extent. Note that the methyl mercaptan would be transported to the compressor station and wellhead sites

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
		via truck during nighttime hours. As discussed under Impact HAZ-1c, the delivery of methyl mercaptan could pass within 0.15 mile of a school. Implementation of Mitigation Measures HAZ-1ci, HAZ-1cii, and HAZ-1ciii would reduce impacts from transporting methyl mercaptan to less than significant. (See Final EIR, p. D.6-46, as well as CEQA Findings of Fact Section IV.2.5.)
	HAZ-4: Project is Located on a Site on a List Compiled Pursuant to Government Code Section 65962.5, Indicating it Would Present a Significant Hazard to the Public and the Environment	The compressor station site and portions of pipeline segments one and two are in portions of Depot Park. The site is listed on several federal, state, and local regulatory databases, including the U.S. Environmental Protection Agency's (EPA's) National Priorities List (NPL), the Resource Conservation and Recovery Act's (RCRA's) Corrective Action Sites (CORRACTS), the State Priority List (SPL), and the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). According to the environmental site assessment, all soil contamination has been fully remediated and no further action is required. Groundwater contamination on site and down-gradient of the site was being remediated during conduction of the environmental site assessment. The U.S. Army has accepted responsibility for all on-site contamination and any future contamination found within the boundaries of Depot Park. No other sites have been identified on the pipeline alignments, compressor station, or wellhead sites that are on the list. Therefore, no significant impact is anticipated. (See Final EIR, pp. D.6-46 and D.6-47.)
	HAZ-5: Interference with an Adopted Emergency Response Plan or Emergency Evacuation Route	Currently, no emergency response plan exists for the area and no formal evacuation route is within the Proposed Project area. Therefore, no impact is anticipated. As discussed in APM 9 (see Section B.7 of the Final EIR), SNGS, LLC will prepare an emergency response plan or emergency action plan for the Proposed Project. (See Final EIR, p. D.6-47.)
Hydrology and Water Quality	H-1: Water Quality Degradation from Erosion and Sedimentation During Construction	The erosion potential for exposed soils within the sites during construction would be relatively low, considering the relatively flat nature of the sites. Even with slight relief, soil detachment, runoff, and subsequent sedimentation are possible. Similarly, wind erosion and sedimentation resulting from mud tracked onto roadways could occur. Sedimentation is considered a pollutant and can have adverse impacts to water quality resulting from increases in turbidity, nutrient loads, and aquatic habitat degradation. However, SNGS, LLC has proposed APMs 1, 2, and 14 to reduce erosion and control sedimentation from construction. These measures require implementation of erosion and sediment best management practices (BMPs); confining construction activities to well-defined work zones; avoidance of sensitive features, including adjacent waters and wetlands; and conducting a Worker Environmental Awareness Program (WEAP), which includes training on all mitigation measures; including BMPs; an erosion and sediment plan; and the covering of trucks hauling soils, sand, and other loose materials. Implementation of these APMs would protect water quality in the project area due to erosion from construction activities; therefore, this impact is considered less than significant. (See Final EIR, pp. D.7-15 to D.7-16.)

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	H-2:Degradation of Water Quality Through Spill of Potentially Harmful Materials Used in Construction	The primary receiving waters for runoff from proposed construction activities, including the wellhead site, compressor station, and pipeline construction, include Morrison Creek, Elder Creek, the remnant Morrison Creek corridor, wetlands, other drainageways, the Sacramento Valley Groundwater Basin, and the South American Subbasin. SNGS, LLC has proposed APMs 7, 8, and 12 to reduce the potential for an inadvertent release and to provide guidelines for containing and cleaning up spills in the event that a hazardous material is released to the ground. The APMs require that hazardous materials be stored in designated storage areas; any refueling, service, and equipment maintenance activities occur at least 100 feet away from sensitive environmental resources; and any refueling, service, and equipment maintenance activities would be done with absorbent material or drip pan underneath equipment to contain spilled fuel or fluids. In addition, APM 8 requires development of a Hazardous Materials Contingency Plan and Health and Safety Plan for quick and safe cleanup of accidental spills occurring during construction. Implementation of these APMs would protect the water quality of both surface water and groundwater in the project area from accidental spills of hazardous materials occurring during construction. Therefore, this impact is considered less than significant. (See Final EIR, p. D.7-16.)
	H-3:Impacts to Surface Waters (above ground facilities)	There are no streams or creeks within the proposed wellhead or compressor station site limits. Therefore, there would be no direct impacts to surface waters at these project sites. Further, APM 13 requires that, following construction, the pipeline right-of-way (ROW) be graded to pre-construction grades and contours and be revegetated with an appropriate seed mix, which would reduce impacts to surface water during operation to less than significant. (See Final EIR, p. D.7-17.)
	H-4: Increased Runoff from New Impervious Areas and Alteration of Existing Drainage Patterns (Pipeline Segments 1 and 2)	Construction of the proposed pipelines would not result in increased runoff, as there are no impervious surfaces associated with installation of the pipelines. During construction, there could be a minor alteration of drainage patterns due to the spoils adjacent to the trenches; however, as installation of the pipelines is proposed during the dry season, and due to the temporary nature (approximately 3 days) of the areas being exposed, this is considered less than significant. After construction of the pipelines, excavated soils would be backfilled into the open trenches, and the area of potential effect would be graded to preconstruction grades and contours. Therefore, there would be no increased runoff or alteration of drainage patterns, and no long-term impacts would occur. (See Final EIR, p. D.7-19.)
	H-5: Construction Impacts to Groundwater Disturbance and Water Quality Degradation (Compressor Station)	Construction of the compressor station will be above groundwater levels and no impact would occur. (See Final EIR, p. D.7-20.)

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
	H-7:Construction in a Potential Dam Inundation Area	The proposed wellhead site and compressor station sites could be affected by a dam failure. However, since the risk of dam inundation and resulting adverse environmental consequences is considered low, this impact would be considered less than significant. The project pipeline segments could be affected by a dam failure. However, since they are located underground and would not be substantially affected by flooding, and since the risk of dam inundation and resulting adverse environmental consequences is considered low, this impact would be considered less than significant. (See Final EIR, p. D.7-22.)
	H-8: Operation and Maintenance Impacts to Surface Water and Groundwater Quality. (Wellhead Site, Abandoned Wells, Compressor Station, Pipeline Segments 1 and 2)	Maintenance of the proposed wellhead site and compressor station would entail periodic ground checks and routine repairs of the equipment. The equipment of the wellhead site would be accessed on paved or gravel roads within the walls of the wellhead site, and no impacts to surface water would occur. Equipment for the compressor station would be inside a structure, and no impacts to surface water would occur. In addition, operation of the pipelines is not expected to have impacts to hydrology and water quality. Maintenance will generally be limited to use of smart pigs for pipeline inspection, which would not create water quality impacts. During operations, the wellhead site will include two water storage tanks that will store produced water taken from the stored natural gas. There is a potential that this water could contain natural gas liquids (NGLs). Since the gas field is considered a dry field containing little NGL, it is expected that the levels will be low and either the water in the tanks will be reinjected into the reservoir or will be disposed of by an approved waste disposal firm that will reuse the material. Therefore, no significant impact would occur. The abandoned wells have been sealed into the cap rock according to requirements of DOGGR, and DOGGR will reevaluate the existing wells and take any action as to additional modifications to these wells; therefore, the failure of these abandoned wells is remote and less than significant. The new wells will be constructed under the supervision of DOGGR. Each well will be drilled to approximately 100 feet below the freshwater table and a casement will be placed and cemented back to the surface. The well will then be completed through the cap rock and a casement again placed and cemented through the cap rock. This would effectively block any migration of gas into the aquifer and is considered less than significant. In addition, APM 5 requires SNGS, LLC to complete engineering and geology studies and an injection plan and submit them to DOGGR for approval. These studies would describe the well drilling and abandonment plans; reservoir characteristics; all geologic units, aquifers, and oil and gas zones; and the monitoring system to

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
		ensure that injected gas is confined to the intended zone. In addition, implementation of the Proposed Project is not expected to impact current remediation programs associated with the current VOC contamination at the former Sacramento Army Depot. Pipelines and other facilities shall be designed to avoid existing wells and piping. Use of casings and sealing of the casings will prevent interaction with contaminated groundwater during drilling of gas wells. (See Final EIR, pp. D.7-22 to D.7-24, and Addendum to the Final EIR, pp. 4 and 5.)
Land Use , Agriculture and Recreation	LU-1: Conflict with an Applicable Land Use Plan, Policy, or Regulation	The Proposed Project would be consistent with applicable General Plan objective, goals, and policies relevant to the City of Sacramento project components. In addition, project facilities are also consistent with the Sacramento City/County Bikeway Master Plan, City of Sacramento Parks Master Plan, Sacramento Housing and Redevelopment Agency: Army Depot Redevelopment Plan and Amendment to Plan, Army Depot Implementation Plan 2005–2009, Enterprise Zone Designation, and City of Sacramento Army Depot Reuse Plan (City Agreement 95-070). The Proposed Project would also be consistent with applicable General Plan objectives, goals, and policies relevant to the County of Sacramento. Therefore, less-than-significant impacts associated with applicable plans and policies would occur. (See Final EIR, pp. D.8-28 to D.8-54.)
	LU-2: Physically Divide an Established Community	The wellhead site and pipeline segment one would be constructed on land situated east of and adjacent to existing residences within the Avondale/Glen Elder Neighborhood Community. Temporary adverse impacts associated with construction and operation of the wellhead site and pipeline segment one would not physically divide the adjacent community, and therefore impacts would be less than significant. Aside from the wellhead site and pipeline segment one, no other project components would be situated adjacent to residential land uses. The nearest residences to the compressor station site are situated approximately 2,250 feet to the west and within the Avondale/Glen Elder Neighborhood Association (AGENA) boundary. Construction nuisances associated with the compressor station and pipeline segment two would not be discernable, given the distance and interfering structures. Therefore, construction and operation of both the compressor station and pipeline segment two would not physically divide an established community and there would be no impact. Use of the existing Florin Gas Field for gas storage does not entail aboveground disturbances (aside from operational facilities described above). Therefore, no impacts associated with physically dividing an established community would occur with use of the existing Florin Gas Field.

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
		(See Final EIR, pp. D.8-54 to D.8-55.)
	LU-3: Disruption of an Established Land Use (Compressor Station)	The compressor station site is situated in a controlled-access area that would result in minimal impacts on surrounding land uses: the site is surrounded by the remnant Morrison Creek channel and open space to the south, by industrial uses and a parking lot to the north, and by open space to the west and east. No impacts to established land uses surrounding the compressor station are anticipated during construction and operation of the compressor station. (See Final EIR, p. D.8-56.)
	LU-4:Displace an Established Land Use	Construction and operation of the Proposed Project would not require additional easements or acquisition of property. Pipelines would be installed within an existing roadway and under the railroad ROWs. No impacts associated with displacement of an established land use would occur. (See Final EIR, p. D.8-58.)
	LU-5:Substantially Deteriorate a Recreational Facility or Disrupt Recreational Activities	The wellhead site and pipeline segment one are located adjacent to Danny Nunn Park. No direct intrusion into the parkland would occur. Aside from temporary noise-related impacts (addressed in Section D.9, Noise and Vibration, of the Final EIR) during construction activities, no other disruptions or physical restrictions to access would occur. Therefore, impacts to recreational resources associated with the Danny Nunn Park would be less than significant. (See Final EIR, p. D.8-58.)
	LU-6: Convert Farmland to Non-Agricultural Use	The Proposed Project would not affect any lands designated by the Department of Agriculture as Farmland. Pipeline installation and operation activities would not preclude agricultural activities nor result in the conversion of farmland to non-agricultural uses, and therefore, no impacts would occur. (See Final EIR pp. D.8-58 and D.8-59.)
	LU-7: Conflict with an Existing Agricultural Use or a Williamson Act Contract	The Proposed Project would not affect any properties under a Williamson Act contract or conflict with an existing agricultural use. (See Final EIR, p. D.8-59.)
Noise and Vibration	N-1: Construction Activities Would Temporarily Increase Local Noise Levels (Compressor Station and Pipelines)	Construction noise at the compressor station and pipeline segments one and two would comply with the City of Sacramento's allowable construction noise standards, resulting in a less-than-significant impact. (See Final EIR, p. D.9-9.)
	N-2: Vibration Could Cause a Temporary Nuisance During Construction	Construction activities, such as a heavy trucks passing over large potholes or bumps, could produce perceptible vibration within approximately 50 feet. Because the closest sensitive receptor is located across Power Inn Road, approximately 200 feet from the proposed wellhead site, temporary impacts associated with construction-related vibration would be less than significant. In addition, vibration from drilling activities may exceed 80 VdB at the wellhead during drilling operations. Because the nearest residence would be 200 feet from the nearest drilling rig and the

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
		directional drilling areas would be greater than 1,000 feet, it is expected that groundborne vibration will attenuate at the closest residence so that this impact may be considered less than significant during drilling operations. (See Final EIR, p. D.9-11.)
	N-3: Noise from Operation of the Wellhead Site	No gas compression would occur at the wellhead site. Noise at the operating wellhead site would only be with the piping system, pumps, and a backup generator and are anticipated to be below the City's allowable noise thresholds, since these facilities would be housed in structures and will be behind block walls. Therefore, noise from operating the wellhead would be less than significant. (See Final EIR, p. D.9-11.)
	N-4: Noise and Vibration from Operation of the Compressor Station	Because the compressor site is approximately 2,250 feet from the nearest residence, noise levels would attenuate to approximately 35 dBA, resulting in a less-than-significant impact. With regard to the future city park sites within Depot Park, which would be located within 0.25 mile of the compressor station, noise levels would attenuate to approximately 40 dBA, resulting in a less-than-significant impact. Vibration of the operation facility is also expected to be low and will attenuate to very low levels at the locations of any residences, resulting in a less-than-significant impact. (See Final EIR, p. D.9-11.)
Population and Housing	P-1: Direct or Indirectly Induced Population Growth	As the Proposed Project would be supporting anticipated regional growth rather than facilitating future energy development, it is not expected that the Proposed Project itself would increase regional population. Therefore, there would be no population growth-related impacts. (See Final EIR, p. D.10-7.)
	P-2: Induced Demand for Housing	Because few, if any, construction workers are expected to permanently relocate to the area as a result of construction activities associated with the SNGS Facility, no new demand for housing would occur. Temporary accommodations might be needed during construction, but with numerous hotels and motels in the area, impacts would be less than significant. (See Final EIR, p. D.10-7.)
	P-3: Displacement of People or Existing Housing	No elements of the Proposed Project would require the removal or relocation of any residential units or business uses. Therefore, the Proposed Project would not result in any displacement impact. (See Final EIR, p. D.10-8.)
	P-4: Environmental Justice (regarding safety of residents please refer to Final EIR Section D.6, Hazardous Materials, Public Health and Safety)	The residential neighborhoods that are located above the Proposed Project's underground natural gas reservoir would be considered disadvantaged according to EPA guidelines. The aboveground facilities that are planned for the project would be located on vacant land, some of which is on the former Army Depot site that is not located in a residential neighborhood. Aboveground facilities are adjacent to disadvantaged populations. Given that the project is compatible from a land-use perspective (see Final EIR Section D.8, Land Use, Agriculture, and Recreational Uses) and would not displace existing uses, it would not disproportionally degrade minority or low-income communities. Furthermore, the applicant has proposed to pay a royalty to each property owner

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
		living above the Florin Gas Field during the duration of the Proposed Project. Therefore, it is anticipated that the project would result in equity[3] of economic benefits of the Proposed Project in low-income/minority communities. (See Final EIR, p. D.10-8.)
	P-5: Urban Decay and Degradation	Because the Proposed Project will not result in significant land use changes, no potential significant impact resulting in urban decay or degradation from the project is anticipated. (See Final EIR, p. D.10-9.)
Public Services and Utilities	U-1: Utility System Disruptions (Natural Gas Storage Reservoir)	The natural gas storage reservoir is an existing facility. Therefore, there would be no impacts associated with utility disruptions. (See Final EIR, p. D.11-9.)
	U-2: Public Service System Disruption (Schools)	The Proposed Project would not generate a need for school facilities and there would be no impact (See Final EIR, p. D.11-12.)
	U-3: Project-Required Utility and Public Service Demands	Neither construction nor operation of the Proposed Project will use water or generate solid waste in amounts exceeding the capacity of local facilities serving the area. (See Final EIR, pp. D.11-12 to D.11-13.)
Traffic and Transportation	T-1:Temporary Road and Lane Closure (Wellhead and Compressor Station)	Construction of the wellhead site and compressor station would result in less-than-significant impacts as activities are not expected to require road or lane closures. (See Final EIR, pp. D.12-8 to D.12-9.)
	T-4: Impacts of Construction on Transit and Rail Operations	Construction of approximately 1,800 feet of pipeline segment one would occur adjacent to the Power Inn Road ROW and no lane closures will be necessary. There are no bus routes adjacent to segment one along Power Inn Road; therefore, no impacts to transit during construction activities would occur. Heading northward toward the compressor station site, the proposed underground pipeline would cross beneath railroad tracks of the Union Pacific Railroad (UPRR). SNGS, LLC would use horizontal direction drilling (HDD) methods to direct the pipeline under Elder Creek Road and the UPRR tracks, which would eliminate conflicts and disruption to rail operations. UPRR requires projects proposing directional bore crossing beneath UPRR ROW to obtain a Crossing Permit. In addition, the Proposed Project would be required to comply with the Interim Guidelines for HDD under an ROW. With obtainment of a Crossing Permit and compliance with the UPRR HDD Interim Guidelines, no impacts to rail operations during construction activities are expected to occur. The tie-in at Fruitridge Road would be located within the City of Sacramento street ROW and may require a lane closure, which could result in a temporary impact to traffic that could affect Bus Route 61. Because this is a temporary construction impact and

[3] "Equity" in this sense means a fair economic benefit to each property owner living above the Florin Gas Field.

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
		would not require rerouting of Bus Route 61, it is considered less than significant. (See Final EIR, pp. D.12-13 to D.12-14.)
	T-7: Construction Would Cause Temporary Loss of Parking	All construction vehicles and equipment would be staged within the proposed wellhead site, compressor station, or within the public ROW (within temporary construction easements and permanent power line easements) along the proposed pipeline alignment route depending upon location of construction activities, therefore, no loss of public parking would occur. During construction, parking spaces in a manufacturing distribution center storage and loading yard on private property along the pipeline construction route east of Power Inn Road, would be temporarily lost but would ultimately be restored upon completion of construction. Therefore, due to the temporary nature of construction, the loss of parking is considered a less-than-significant impact. (See Final EIR, p. D.12-15.)
	T-8:Conflict with Planned Roadway Improvement Projects	According to potentially affected jurisdictions, no roadway projects are planned near the wellhead site, compressor station, or pipeline construction route. While the Proposed Project would introduce new permanent pipelines into the ROW of Power Inn Road and Fruitridge Road, these pipelines would be located at a depth that would not conflict with planned or future roadway improvement projects. Additionally, there are no planned roadway improvement projects identified by the City of Sacramento for Power Inn Road or Fruitridge Road. Therefore, no impacts to planned roadway improvement projects would occur. (See Final EIR, p. D.12-15.)
Visual	V-1:Short-Term Visual Impacts: Scenic Views	Construction activities at the wellhead site, compressor station site, and pipeline segments one and two are considered temporary. Most construction activities at the wellhead site would be screened once the 10-foot-high masonry wall is constructed around the site. Further, the construction of the compressor station site as well as portions of pipeline segment two would not be visible to sensitive receptors. Therefore, short-term visual impacts to scenic resources due to aboveground facilities would be less than significant. As the natural gas reservoir site is situated below the ground, no construction impacts from this project component would occur. (See Final EIR, pp. D.13-17 to D.13-18.)
	V-2: Long-Term Visual Impacts: Scenic Views and Lighting	Due to the visual screening of the wellhead site by a 10-foot masonry wall and by landscaping along Power Inn Road and Junipero Street, long-term visual resource impacts would be less than significant. Further, as the compressor station site is not visible to nearby sensitive receptors and it is within an industrial use area, a less-than-significant impact to the existing visual resources would occur. In addition, since there would be no substantial change in the existing ambient nighttime lighting surrounding the wellhead and compressor station sites, a less-than-significant impact would occur due to light and glare.

Resource	Impact Evaluation Category	Rationale for No Impact or Less-than-Significant Impact
		Once construction is complete, the pipelines would be located underground and would be hidden from sight; therefore, impacts would be less than significant. The natural gas reservoir site is situated approximately 3,800 feet below the ground. Therefore, there would be no long-term visual impacts from this project component. (See Final EIR, pp. D.13-18 to D.13-21.)

IV.2 Significant Environmental Impacts That Have Been Reduced to a Less-Than-Significant Level

The Commission hereby finds pursuant to PRC Section 21081 that the following environmental impacts can and will be mitigated to below a level of significance based upon implementation of the mitigation measures in the EIR. These findings are based on the discussion of impacts in the detailed issue areas in Sections D and F (Cumulative Scenario and Impacts) of the Final EIR (June 2010) and the Addendum to the Final EIR (July 2011). An explanation of the rationale for each finding is provided below.

IV.2.1 Air Quality

Final EIR Section D.2, Air Quality, addresses the existing air quality of the project area, as well as addressing the impacts of the project on air quality. The analysis included the impacts of the construction phase to air quality as well as impacts during operation of the project. Final EIR Section D.2.3.3, Air Quality Impact Analysis, addresses the impacts of the Proposed Project and presents mitigation measures. This information is based on existing plans and studies as well as the Proposed Project PEA and the Addendum to the PEA.

Impact A-2: Would the Project Violate an Air Quality Standard or Contribute Substantially to an Existing or Projected Air Quality Violation?

The maximum construction-related NO_x emissions would exceed the Sacramento Metropolitan Air Quality Management District (SMAQMD) significance threshold. Therefore, the construction of the Proposed Project would result in significant air quality impacts. Operational impacts would be less than significant.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact A-2. Specifically, the CPUC finds that Mitigation Measure A-2 will reduce air quality impacts to a less-than-significant level. This measure is identified below:

A-2 **Emissions Related to Project Construction.** SNGS, LLC has committed to implementing APM 3(d) (as described in Table D.2-7) to reduce the Proposed Project's construction emissions to a less-than-significant level. The SMAQMD has established a construction emissions mitigation fee, which is to be used to fund repowering and retrofit projects for older construction equipment and similar emission reduction programs. The current fee is $16,000 per ton of NO_x emissions in excess of the 85-pound-per-day significance threshold. The mitigation fee has been calculated for the Proposed Project (see Section 3.3 of the PEA Addendum). The fee is based on excess emissions that were estimated to occur only during weeks 16 and 17 of the construction schedule. The total mitigation fee for the Proposed Project is $8,827 ($8,407 NO_x mitigation fee plus a $420 administrative

fee).[4] This fee has been estimated based on the current SMAQMD fee and included as a mitigation measure with payment of the construction emissions mitigation fee to the SMAQMD. The actual mitigation fee shall be based on the SMAQMD calculation method and fees at the time of payment.

Rationale for Finding: The construction-related impacts will be reduced to a less-than-significant level through SNGS, LLC paying the required fees to the SMAQMD based on fee rates required at time of payment. This is an established mechanism for projects to offset short-term construction impacts.

Reference: Final EIR Section D.2.3.3, Air Quality Impact Analysis, provides a complete analysis and estimate of construction emissions as well as project impacts and presents mitigation measures.

Impacts C-AQ-1 and C-AQ-2: Potential for Greenhouse Gas Emissions (Methane Leakage and Electrical Usage):

As described in Final EIR Section F.4, Cumulative Impacts (Section F.4.1, Air Quality), operation of the Proposed Project would result in greenhouse gas (GHG) emissions. Because 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 Natural Gas STAR program is a voluntary partnership implemented through the U.S. Environmental Protection Agency (EPA) 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-AQ-1 is proposed to mitigate leaks and related losses of methane from the Proposed Project. Further, Mitigation Measure C-AQ-2 is proposed to minimize the GHG emissions associated with electrical usage by the Proposed Project.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate cumulatively considerable effects on the environment due to operational GHG impacts as a result of methane leakage (Impact C-AQ-1) and electrical usage (Impact C-AQ-2). Specifically, the CPUC finds that Mitigation Measures C-AQ-1 (methane leakage) and C-AQ-2 (electrical usage) will reduce GHG operational impacts, and impacts to GHG are not considered cumulatively considerable. These measures are identified below:

C-AQ-1 SNGS, LLC shall participate in the U.S. EPA's Natural Gas STAR Program in order to reduce methane gas emissions. A memorandum of understanding (MOU) between SNGS, LLC and with the U.S. EPA Natural Gas STAR Program shall be signed prior to initial startup of the compressor station. Within

[4] Since the Addendum to the PEA was prepared, the SMAQMD increased the NO_X mitigation fee from $14,300 to $16,000. Also, the Addendum to the PEA did not include the administrative fee of 5%.

> 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.

Natural Gas STAR Program Implementation Plan as clarified in Section 3 of the Addendum to the Final EIR (p. 20):

> **Purpose of Plan:** Natural Gas STAR is a voluntary program of the gas and oil industry to reduce methane emissions during the production and transportation of natural gas. The plan shall provide measures to reduce methane emissions for the project, and ensure that impacts to global climate change are not considered cumulatively considerable.
>
> **Contents of Plan**: The plan shall provide engineering detail of specific project components to demonstrate the reduction in emissions of methane from the project. All measures addressed in this plan shall meet the requirements and needs of the reviewing and approving agencies as detailed at the time those agencies are reviewing the plan.
>
> **Reviewing and Approving Agencies**: CPUC and Environmental Protection Agency.
>
> **Mitigation Monitoring:** The plan must be submitted and approved before commencement of the project.

C-AQ-2: Potential for Greenhouse Gas Emissions (Electrical Usage):

C-AQ-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.

Rationale for Finding: The cumulative effects of the project's operational GHG emissions will be reduced through SNGS, LLC's participation in the EPA's Natural Gas STAR Program (Mitigation Measure C-AQ-1) and in SMUD's Greenergy Program (C-AQ-2). With implementation of Mitigation Measures C-AQ-1 and C-AQ-2, APM-3 listed in Final EIR Table B-5, and Mitigation Measure A-2 identified in Final EIR Section D.2, impacts to GHG are not considered cumulatively considerable.

Reference: Final EIR Section F.4.1, Air Quality, provides a complete analysis of cumulatively considerable GHG emissions and presents mitigation measures. In addition, the Addendum to the Final EIR Section 3, Provision of Further Information on Mitigation Measures, provides clarifying information regarding the purpose and contents of the Natural Gas STAR Program Implementation Plan.

IV.2.2 Biological Resources

Final EIR Section D.3, Biological Resources, provides an analysis of the existing biological resources, potential for impacts to biological resources, and mitigation measures to eliminate or reduce the impacts to these resources. For the purposes of the analysis in the EIR and based on CEQA requirements, the analysis is based on field studies and literature review and includes analysis of vegetation, wildlife, aquatic resources, and special-status species. Final EIR Section D.3.3 addresses the impacts of the Proposed Project to biological resources.

Impact B-1: Substantial Adverse Effect on Listed, Candidate, or Special-Status Species

Impact to Sanford's Arrowhead. There is a potential that the Proposed Project could impact Sanford's arrowhead if it occurs during boring of pipeline segment one under Morrison Creek. The lack of rain and restricted access to this area prevented full surveys, so presence is assumed. This could be from frac-outs during borings as well as from indirect means, including conduction of construction activities near Morrison Creek. This impact is significant, but will be reduced to less-than-significant levels through implementation of Mitigation Measure B-1a.

Impact to Vernal Pool Crustaceans and Their Habitat. The seasonal wetlands in the project area has the potential for vernal pool fairy shrimp, vernal pool tadpole shrimp, and California linderiella. Of particular concern is the potential loss of these species in the wetlands at the proposed compressor station site. Pipeline construction, including trenching, stockpiling, equipment staging, and other activities, may impact isolated wetlands near the proposed pipeline alignment. Since analysis of the vernal pools for fairy shrimp was not conducted, presence is assumed. This impact is considered significant; however, with implementation of Mitigation Measure B-1b, impacts will be reduced to less than significant.

Impact to Giant Garter Snake. Morrison Creek is marginal habitat for this species but their presence is assumed. The potential habitat would be crossed using HDD. In the event of a potential frac-out, it is anticipated that impact to this species may be significant but will be mitigated to a less-than-significant level through implementation of Mitigation Measure B-1c, even though there is a low potential for the area to support this species.

Impact to Burrowing Owls. Implementation of the Proposed Project has a potential to impact nesting burrowing owls due to construction of the wellhead site, compressor station, and pipeline segments one and two. No owls have been identified during initial

surveys but they have been previously identified in the area. However, there is a potential that birds could nest in the area prior to construction since ground squirrel burrows (where they build nests) are located in the area. This impact is considered significant, but will be mitigated to a less-than-significant level through implementation of Mitigation Measure B-1d.

Impact to Foraging Habitat for the Swainson's Hawk, White-Tailed Kite, Cooper's Hawk, Great Egret, and Great Blue Heron. Implementation of the Proposed Project would result in the loss of or substantial disturbance to approximately 9 acres of grassland habitat. This would reduce foraging habitat to these special-status raptors and other raptors in the area. This impact is considered significant and will be mitigated to less-than-significant levels through implementation of Mitigation Measure B-1e.

Impact to Nesting Raptors and Other Nesting Migratory Birds. There are a number of trees in the project area that could be nesting habitat for the Swainson's hawk and other raptors. No nesting birds were noted during the surveys; however, they could be present near the construction areas at the time construction begins. This includes the cottonwoods near the wellhead site and other trees near the compressor station and pipeline segments. Trees are not proposed to be removed with implementation of the Proposed Project. However, construction activities, including noise and presence of workers, could potentially result in significant impacts to nesting birds. This impact will be mitigated through implementation of Mitigation Measure B-1f.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact B-1. Specifically, the CPUC finds that Mitigation Measures B1a through B1f will reduce impacts to special-status species to a less-than-significant level. These measures are identified below:

B-1a **Impacts to Sanford's Arrowhead.** Prior to initiation of construction, the applicant shall retain a qualified botanist to survey for the Sanford's arrowhead from Elder Creek Road to 250 feet upstream and downstream of Morrison Creek where HDD would be conducted. Even though most of the habitat potentially supporting populations of this species will be avoided, activities may impact this species. This survey shall be conducted during a period of time (March through May) when the phonology of the plant will allow for ready identification. Any populations found shall be fenced under the supervision of the botanist and no work shall be conducted within the fenced area. These excluded areas shall be monitored throughout the period of construction to ensure that the fencing is maintained.

B-1b **Impacts to Vernal Pool Fairy Shrimp.** A protocol-level vernal pool fairy shrimp survey shall be conducted by a qualified biologist at each potential wetland habitat. If this is not conducted, then it shall be assumed that each potential vernal pool contains these species. These assumed-occupied areas shall be avoided where possible by fencing off these areas and monitoring during construction to

ensure the areas are not disturbed. Also, use of HDD to avoid these areas should be used where feasible. Consultation shall be conducted with the U.S. Fish and Wildlife Service (USFWS) to obtain any necessary permits or approvals if populations or assumed populations would be disturbed. For areas that cannot be avoided, at least two vernal pool credits shall be purchased prior to any construction at a USFWS-approved preservation bank for every acre directly or indirectly impacted.

B-1c **Impacts to Giant Garter Snake.** Construction in areas determined to be potential habitat for the giant garter snake shall be conducted between May 1 and October 1. Moreover, consultation shall be conducted with the USFWS to obtain the necessary permits and approvals. Surveys for the species shall be conducted 24 hours before commencement of construction activities or potential activity. Any occupied area shall be avoided by construction. Any impact to upland or marsh vegetation shall be mitigated by restoration of habitat after completion of impacts. Monitors shall have the appropriate training to identify the species during construction. If the species is encountered, all construction work shall cease. After construction ceases, the USFWS and California Department of Fish and Game (CDFG) will be notified and additional measures will be developed with those agencies to avoid impacts to individuals. Once these mitigations are in place and approved by the agencies, then construction in the area can resume. Debris shall be removed after completion of construction.

B-1d **Impacts to Active Burrowing Owl Burrows.** Owls could nest in the Proposed Project area during the spring and summer, although no nesting owls were noted during the prior biological surveys. However, they could begin nesting prior to construction. Therefore, preconstruction surveys shall be conducted by a qualified biologist within 30 days prior to initiation of construction. If burrowing owls are observed between February 1 and August 15, a 250-foot buffer shall be established around the burrow and no work shall commence in the buffer zone until young have fledged. If construction is occurring during non-breeding season, then passive relocations shall be conducted under supervision by the CDFG.

B-1e **Impacts to Foraging Habitat for Swainson's Hawk and Other Raptors.** The applicant shall mitigate for loss of habitat on a 1:1 ratio through purchase of mitigation bank credits in a CDFG mitigation bank or payment of a mitigation fee to an approved habitat mitigation bank. This would be for the permanent loss of habitat at the proposed compressor station site and proposed wellhead site.

B-1f **Impacts to Active Nests of Raptors or Other Migratory Birds.** No nesting birds were recorded during previous surveys; however, birds could nest prior to construction in the spring and summer. Therefore, preconstruction surveys shall be conducted during the breeding season (February 1 through August 30) within one-half mile of all construction activities. The survey shall be conducted by a

qualified biologist to determine if any nesting raptors or migratory birds are present. If present, construction shall be delayed until the birds have fledged. If that is not possible, then a minimum 250-foot buffer zone shall be established in consultation with the CDFG and the nests shall be monitored during construction.

Rationale for Finding: By conducting preconstruction surveys identified in Mitigation Measures B-1a through B-1f, project-related impacts to plant and wildlife species will be reduced to a less-than-significant level. These measures will ensure that impacts to special-status biological resources are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.3.3 addresses the impacts to special-status species and presents mitigation measures.

Impact B-2: Substantial Adverse Effect on Riparian Habitat or Other Sensitive Habitat

No riparian habitats would be impacted by these project components as the project will use HDD near the riparian areas. In the event of a frac-out, there would be a potentially significant impact, due to disturbance of the riparian area with drilling mud. It should be noted that the Sacramento Army Depot Reuse Plan set aside approximately 63 acres in the present Depot Park for a natural resource protection area. A portion of pipeline segment one and most of pipeline segment two are contained within this resource protection area. Implementation of the Proposed Project would result in trenching through this area as well as use of HDD under Morrison Creek. This would result in temporary loss of grassland habitat and potential impacts to vernal pools and fairy shrimp. Mitigation measures, including revegetation of pipeline alignments (APM 13) and compensation for loss of any vernal pools (Mitigation Measure B-1b), would reduce these impacts to less-than-significant levels. The proposed compressor station and associated pipelines are outside of the riparian area.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact B-2. Specifically, the CPUC finds that Mitigation Measure B1b, described above, will reduce impacts to wetlands and other sensitive habitats to a less-than-significant level.

Rationale for Finding: With implementation of reseeding along pipeline alignments (APM 13, as described in Final EIR Table B-5), as well as avoiding or minimizing impacts to riparian habitat through the use of HDD, or the purchase of vernal pool credits (Mitigation Measure B-1b), the project-related impacts will be reduced to less-than-significant levels. These measures will ensure that impacts to wetlands or other sensitive habitats are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.3.3 provides a complete assessment of impacts to riparian habitat or other sensitive habitat and presents mitigation measures.

Impact B-3: Substantial Adverse Effect on Federally and State-Protected Wetlands

Implementation of the Proposed Project has the potential to impact wetlands and other waters of the U.S. as well as wetlands under the jurisdiction of the CDFG and the Regional Water Quality Control Board (RWQCB) through development of the compressor station, and installation of pipeline segments one and two. It is estimated that 0.50 to 0.75 acre of wetlands would be disturbed. This is considered a significant impact and will require permits from the U.S. Army Corps of Engineers (ACOE) under Section 404 of the Clean Water Act (CWA) and certification from the RWQCB under Section 401 of the CWA. For those wetlands not under ACOE jurisdiction, the areas may still be under jurisdiction of the RWQCB under the Porter-Cologne Act. CDFG will also be required to approve HDD under waters within their jurisdiction. With implementation of Mitigation Measures B-3a and B-3b, impacts will be reduced to less-than-significant levels.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact B-3. Specifically, the CPUC finds that Mitigation Measures B3a and B3b, described below, will reduce impacts to wetlands and other sensitive habitats to a less-than-significant level.

B-3a **Avoidance of Wetlands and Compensation.** The wetlands delineation prepared by Sycamore Environmental Consultants (2008) for those areas not verified in the earlier delineation by CH2M HILL shall be verified and concurrence on the areas of ACOE jurisdiction shall be obtained by ACOE. Wetlands shall be avoided where feasible either through rerouting of the pipeline or the use of HDD. Where wetlands cannot be avoided, the loss of wetlands shall be compensated for through restoration of the wetlands or through creation of wetlands elsewhere, either directly or through an established wetlands bank approved by the ACOE. The project shall comply with the ACOE's policy to ensure no net loss of wetlands or waters of the U.S., and their associated functions and values. CDFG or RWQCB permits shall be obtained by the appropriate agency prior to initiation of construction. It is estimated that the mitigation ratios will be between 2 to 1 and 3 to 1.

B-3b **Avoidance of Impacts to Creeks and Drainages.** Creek and drainage crossings shall be conducted in a manner that does not result in a sediment-laden discharge or hazardous materials release to the waterbody. The following measures shall be implemented during horizontal boring (jack and bore) operations:

(1) Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages. In the event of a frac-out, the activities shall be stopped immediately, the material shall be removed, and the site restored to previous conditions.

(2) Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of bank or wetland/riparian boundary for Morrison Creek. Spoils shall be

stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention).

(3) Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times.

(4) Immediately following backfill of the bore pits, disturbed soils shall be seeded and stabilized to prevent erosion and temporary sediment barriers left in place until restoration is deemed successful.

(5) SNGS, LLC shall obtain the required permits prior to conducting work associated with HDD activities and provide proof to CPUC. Required permits may include ACOE CWA Section 404, RWQCB CWA 401, CDFG Streambed Alteration Agreement 1602. SNGS, LLC shall implement all pre- and post-construction conditions identified in the permits issued for HDD activities. This will involve methods to avoid or remediate frac-outs.

Rationale for Finding: The project-related impacts will be reduced to a less-than-significant level through implementation of Mitigation Measures B-3a and B-3b. Mitigation Measure B-3b(5) ensures acquisition of regulatory permits that will compensate all jurisdictional wetlands potentially impacted and will reduce impacts to a less-than-significant level. These measures will ensure that impacts to federal or state-protected wetlands are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.3.3 provides a complete assessment of the biological resource impacts of the project and presents mitigation measures.

Impact B-6: Conflict with any Local Policies or Ordinances Protecting Biological Resources, Such as a Tree Preservation Policy or Ordinance.

A portion of pipeline segment one and most of pipeline segment two are within the 63-acre natural resource protection area set aside in the Sacramento Army Depot Reuse Plan. With implementation of Mitigation Measure B-6, potential impacts of pipeline construction in this protected area will be reduced to less than significant.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact B-6. Specifically, the CPUC finds that Mitigation Measure B-6, described below, will reduce impacts related to conflict with local policies or ordinances protecting biological resources to a less-than-significant level.

B-6 SNGS, LLC shall coordinate with the City of Sacramento and the Department of the Army to avoid any loss of wetlands or to compensate for loss within the natural resource protection area set aside in The Sacramento Army Depot Reuse Plan. This could include increased use of HDD or compensation for any wetland loss on a 2 or 3-to-1 basis. The project shall comply with the ACOE's policy to ensure no net loss of wetlands or waters of the U.S., and their associated functions and values.

Rationale for Finding: The project-related impacts will be reduced to a less-than-significant level through adoption of Mitigation Measure B-6, which requires either avoiding loss of wetlands through the use of HDD or through providing compensation for any wetland loss on a 2 or 3-to-1 basis. In addition, SNGS, LLC will be required to comply with ACOE's policy of no net-loss of wetlands. This measure will ensure that there will be no conflict with the natural resource protection area set aside in The Sacramento Army Depot Reuse Plan.

Reference: Final EIR Section D.3.3 addresses the impacts to special-status species and presents mitigation measures.

IV.2.3 Cultural Resources

As discussed in Final EIR Section D.4, Cultural Resources, a records search was conducted for the Proposed Project that included an examination of the official records and maps for archaeological sites and surveys in Sacramento, as well as a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Inventory of Historic Resources, California State Landmarks, California Points of Historical Interest, the Directory of Properties in the Historical Resources Inventory (California Department of Parks and Recreation 2005), Caltrans Local Bridge Surveys, and secondary sources pertaining to state and local prehistory and history. In addition, a field survey covering 100% of the project area, including the pipeline alignments, compressor station site, and wellhead site, was conducted. The area has been impacted through urban development and no cultural resources were found during the field survey. For the purposes of the analysis in the EIR and based on CEQA requirements, cultural resources are defined as any object or specific location of past human activity, occupation, or use, identifiable through historical documentation, inventory, or oral evidence. These resources may include buildings and architectural remains, archaeological sites and other artifacts that provide evidence of past human activity, or human remains. Section D.4 of the EIR addresses the existing cultural resources, including both historic and prehistoric resources. Section D.4 includes an analysis of the existing cultural resources as well as an analysis of the impacts to known or unknown resources.

Impact C-2: Construction Could Affect Undiscovered Cultural Resources

As discussed in Final EIR Section D.4.3.3, Cultural Resources Impact Analysis, the cultural resources report indicated that there is a low potential for undiscovered prehistoric resources at the wellhead site and compressor station. Although the likelihood to affect undiscovered cultural resources is low, the potential to impact undiscovered cultural resources during construction remains. In addition, there is a potential for undiscovered prehistoric resources along the pipeline alignment. The area of moderate potential for these resources is in the historic flow pattern of Morrison Creek. The potential for discovery of unknown cultural resources during construction is considered a significant impact; however, with implementation of Mitigation Measures C-2a and C-2b, this impact would be reduced to less than significant.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact C-2. Specifically, the CPUC finds that Mitigation Measures C-2a and C-2b, described below, will reduce impacts to unknown cultural resources to a less-than-significant level.

C-2a **Prepare Cultural Resources Treatment Plan**. SNGS, LLC shall contract with a professional archaeologist who meets the Secretary of Interior's standards for prehistoric archaeology to develop a Cultural Resources Treatment Plan (CRTP). The CRTP shall include procedures for protection and avoidance, evaluation, and treatment of the unexpected discovery of archaeological resources including Native American burials, detailed reporting requirements by the project archaeologist, curation of any cultural materials collected during the project, and requirements to specify that archaeologists and other discipline specialists meet the Professional Qualification Standards mandated by the California Office of Historic Preservation.

Specific protective measures such as avoidance shall be defined in the CRTP to reduce potential adverse impacts on any presently undetected archaeological resources to less-than-significant levels. The CRTP shall be submitted to the CPUC for review and approval at least 30 days before the start of construction. The CRTP shall discuss the types of resources that could possibly be associated with the two known/recorded unevaluated railway lines that are to be bored under and/or are adjacent to the proposed pipeline, and shall outline the monitoring program to be used during the implementation of Mitigation Measure C-2b.

If the CPUC, in consultation with the qualified archaeologist, determines that a unique archeological resource is present and that the resource could be adversely affected by the Proposed Project, the CPUC shall require re-design of the project to avoid any adverse effect on the unique archeological resource; or the CRTP shall identify how a proposed data recovery program would preserve the significant information of any discovered archeological resource it is expected to contain. That is, the CRTP shall identify the scientific/historical research questions that are

applicable to the expected resource classes, the data classes the resource(s) is expected to possess, and how the expected data classes would address the applicable research questions. Should the preferable treatment of avoidance be infeasible, data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the Proposed Project.

Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.

All reporting shall be consistent with current professional practice, consistent with the relevant sections of the *Archaeological Resource Management Reports: Recommended Contents and Format* (California Department of Parks and Recreation 1990), and shall be presented to the CPUC and North Central Information Center of the California Historic Resources Information System within 60 days of completion of the project.

Cultural Resources Treatment Plan as clarified in Section 3 of the Addendum to the Final EIR (pp. 13 and 14):

Purpose of Plan: To develop procedures for protection of cultural resources that are currently unknown but may be encountered during construction and to reduce those potential impacts to less than significant.

Content of Plan: The plan shall develop the procedures for monitoring of excavations, procedures to stop construction in the event resources are encountered, methods of evaluation, notification process, and how the resources will be evaluated and mitigated.

Reviewing and Approving Agencies: CPUC and Native American Heritage Commission.

Mitigation Monitoring: The plan shall be submitted and approved before construction begins. Monitoring during construction shall take place and the procedures outlined in the plan shall be followed.

C-2b Conduct Construction Monitoring. Archaeological monitoring shall be conducted by a qualified archaeologist (see Mitigation Measure C-2a) familiar with the types of historic and prehistoric resources that could be encountered within the proposed pipeline alignment. A Native American monitor may also be required at the discretion of the project archaeology. Any archaeological resources discovered during monitoring shall be evaluated to determine if they are "unique archaeological resources" as defined by CEQA. The effect of the project on unique archaeological resources shall be determined. If the finding is determined to be a unique archaeological resource, and if avoidance of the resource is not feasible, then a data recovery program shall be performed pursuant

to the CRTP (see Mitigation Measure C-2a). Any resultant archaeological collections and their records shall be curated at an appropriate institution.

If human remains are discovered, there shall be no further excavation or disturbance of the discovery site or any nearby area reasonably suspected to overlie adjacent human remains until the project applicant has immediately notified the county coroner and otherwise complied with the provisions of State CEQA Guidelines Section 15064.5(e) (AEP 2008). If the remains are found to be Native American, the county coroner shall notify the NAHC within 24 hours pursuant to Public Resource Code Section 5097.98. The most likely descendant of the deceased Native American shall be notified by the NAHC and given a minimum of 48 hours from the time of notification for the opportunity to make a recommendation for the proper disposition of human remains. If the NAHC is unable to identify the most likely descendant, or if no recommendations are made within 72 hours, remains may be reinterred with appropriate dignity elsewhere on the property in a location not subject to further subsurface disturbance. If recommendations are made and not accepted, the NAHC will mediate.

Rationale for Finding: The project-related impacts will be reduced to a less-than-significant level through implementation of Mitigation Measures C-2a and C-2b. These measures will ensure that unknown cultural resources and/or human remains discovered during construction will be evaluated and treated appropriately. Therefore, impacts to areas with undiscovered cultural resources will be avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.4, Cultural Resources, provides a complete assessment of the project impacts on unanticipated archaeological discoveries and presents mitigation measures. In addition, the Addendum to the Final EIR Section 3, Provision of Further Information on Mitigation Measures, provides clarifying information regarding the purpose and contents of the CRTP.

IV.2.4 Geology and Soils

Final EIR Section D.5, Geology and Soils, describes the existing geological conditions as well as potential impacts associated with geological hazards. This information is based on the analysis of existing information and studies. It should be noted that impacts associated with release of natural gas and risk of fire and explosions are addressed in Final EIR Section D.6, Hazardous Materials, Public Health and Safety.

Impact G-2: Exposure of People or Structures to Strong Seismic Ground Shaking

As described in Final EIR Section D.5.3.3, Geology and Soils Impact Analysis, damage to the wellhead site or pipelines could result in fire, which could present a hazard to nearby residential uses on Power Inn Road. However, the geotechnical evaluation of the wellhead site performed by Terracon identified specifications to be incorporated in the

design requirements for these structures to reduce the primary and secondary risks associated with seismically induced ground shaking. Other design requirements that must be followed include those of the Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. 1671–1686) and CPUC General Order 112-E or other accepted non-building structure standards to reduce the primary and secondary risks associated with seismically induced ground shaking. APM 4 and Mitigation Measure G-2 have been incorporated into the project to reduce impacts to less than significant to aboveground structures and facilities associated with the Proposed Project due to seismically induced ground shaking.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact G-2. Specifically, the CPUC finds that Mitigation Measure G-9, described below, will reduce impacts associated with strong seismic shaking to a less-than-significant level.

G-2 **Seismic Design of Facilities.** The seismic design of the facilities will employ a lateral acceleration one-third greater than that required by the 2007 California Building Code (CBC). Therefore, the facilities will be designed to withstand ground shaking higher than anticipated by CBC.

Rationale for Finding: Incorporation of APM 4 that requires the project to be designed to meet the seismic safety standards of the CBC (as described in Final EIR Table B-5), along with Mitigation Measures G-2 that will employ a lateral acceleration greater than required by CBC, will reduce the project impacts to a less-than-significant level. Together, these measures will ensure that impacts to areas that risk to people exposure from ground shaking are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.5 addresses the impacts to geology and presents mitigation measures.

Impact G-9: Impact on Unique Geologic or Paleontological Resources

Based on the record search conducted at the University of California, Berkeley, Museum of Paleontology, there are no previously recorded fossil sites near the wellhead site, compressor station, or along the proposed pipeline alignments. However, as described in Final EIR Section D.5.3.3, Geology and Soils Impact Analysis, the alignments are in sediments of the Riverbank Formation, which is considered a paleontologically sensitive unit under the Society of Vertebrate Paleontology guidelines. Therefore, APM 6, which requires that a paleontological resources discovery and management plan be developed prior to construction and be implemented as part of the project to avoid potential impacts on these resources, along with implementation of Mitigation Measure G-9, will ensure that impacts to unique or paleontological resources will be less than significant.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact G-9.

Specifically, the CPUC finds that Mitigation Measure G-9, described below, will reduce impacts to paleontological resources to a less-than-significant level.

G-9 **Procedures to Avoid Impacts to Paleontological Resources.** Prior to the start of construction, a qualified paleontologist will conduct a field survey to identify sensitive stratigraphic units within the construction area that might be disturbed. If paleontological resources are discovered during construction-related earthmoving activities, all ground-disturbing activity in the vicinity of the discovery will be halted; the City of Sacramento Community Development Department or the County of Sacramento, as appropriate, will be notified; and specimen or data recovery, as determined adequate by a qualified paleontologist and consistent with the Society of Vertebrate Paleontology guidelines, will be completed before construction in the vicinity of the discovery resumes. These procedures ensure that the Proposed Project will have a less-than-significant impact on paleontological resources.

Rationale for Finding: APM 6 (as described in Final EIR Table B-5) requires the preparation of a paleontological discovery and management plan to be developed prior to construction and implemented as part of the project. In addition**,** Mitigation Measure G-9 provides for construction monitoring that will identify any potentially sensitive paleontological resource that may be uncovered as construction and excavation proceeds, and further outlines procedures to avoid destruction of resources, and for recovery of resources, thereby avoiding a significant impact.

Reference: Final EIR Section D.5 Geology and Soils, provides a complete assessment of project impacts on paleontological resources and presents mitigation measures.

IV.2.5 Hazardous Materials, Public Health and Safety

Final EIR Section D.6, Hazardous Materials, Public Health and Safety, evaluates the potential hazards to the public and worker health and safety associated with the Proposed Project and alternatives. The EIR identifies known hazardous waste contamination sites in the study area. The primary reason to define potentially hazardous sites is to protect worker health and safety and to eliminate or minimize public exposure to hazardous materials during construction and waste handling. Information on known hazardous material sites was collected from the review of several documents, including the PEA, the addendum to the PEA, the environmental site assessment prepared for the project, and the study conducted for the closure and reuse of the former Sacramento Army Depot. The Army has constructed a number of monitoring and remediation wells in the Depot Park area. Final EIR Section D.6 also discusses the past uses of the project area for gas extraction and the history of the Florin Gas Field.

Impact HAZ-1: Potential Hazards Associated with Routine Transport, Use, and Disposal of Hazardous Materials

Hazardous materials would be used and transported during the construction of the Proposed Project and for the operation of the proposed compressor station. These individual impacts are discussed as follows:

Impact HAZ-1a: Potential Hazards Associated with the Routine Use, Transport, and Disposal of Hazardous Materials During Construction of the Proposed Project

As described in Final EIR Section, D.6.3.3, Hazardous Materials, Public Health and Safety Impact Analysis, construction of the Proposed Project would involve the transport, use, storage, and disposal of hazardous materials. These materials would include fuels (gasoline, diesel, and propane), lubricants, solvents, hydraulic fluids, and other toxic or flammable materials. There is a potential that this material could spill during its transport, which could result in the release of toxic materials into public streets or potentially wetlands and could potentially contaminate soils or groundwater. Through incorporation of APMs 7, 8, 9, and implementation of Mitigation Measure HAZ-1a, impacts related to the transport and disposal of hazardous materials during construction would be reduced to a less-than-significant level. Project construction activities would also require the use and storage of hazardous materials on site that include fuels, solvents, lubricants, and similar substances. There is a potential that this material could be released, thereby contaminating soil and potentially surface water and groundwater. Through incorporation of APMs 7 and 8 and implementation of Mitigation Measure HAZ-1a, impacts associated with the use and storage of hazardous materials would be reduced to a less-than-significant level. These measures would reduce the potential for a spill to occur and will ensure rapid and proper cleanup. A complete description of applicable APMs is located in the Final EIR Table D.6-1.

Impact HAZ-1b: Potential Hazards Associated with the Generation and Disposal of Drilling Mud and Cuttings from Well Drilling and Horizontal Directional Drilling (HDD)

As described in Final EIR Section, D.6.3.3, Hazardous Materials, Public Health and Safety Impact Analysis, development of the wellhead site would require the drilling of wells for the injection and recovery of natural gas to be drilled with drilling mud to lubricate the drill bit and to maintain the down-hole pressure while drilling. The drilling mud may be fairly nontoxic or could contain lubricants, solvents, and heavy metals. Regardless, the mud would become contaminated with contaminated water, oils, and chemicals during drilling. Of particular concern would be the potential trichloroethylene (TCE) contamination in the groundwater aquifer. Further, the drilling would produce cuttings (earth and rock material from the drill hole) that would be mixed with the drilling mud and brought to the surface. The drill mud and cuttings would become contaminated and will require proper disposal. This is considered a significant impact; however, through implementation of Mitigation

Measure HAZ-1b, the potential hazards due to the generation and disposal of drilling mud and cuttings would be reduced to a less-than-significant level.

Construction of pipeline segments one and two would require HDD, which would produce mud and cuttings and could result in similar impacts as discussed for the wellhead site above and, similarly, can be reduced to less-than-significant levels through implementation of Mitigation Measure HAZ-1b. This mitigation measure will ensure proper transport and disposal of materials.

Impact HAZ-1c: Use, Transportation, and Storage of Methyl Mercaptan

As described in Final EIR Section, D.6.3.3, Hazardous Materials, Public Health and Safety Impact Analysis, methyl mercaptan would be transported, stored, and used at the compressor station and wellhead site to add more odorant to natural gas, as necessary. Methyl mercaptan is considered an irritant causing respiratory distress if breathed in concentrated form. Methyl mercaptan is not flammable from ignition sources such as sparks or flames but could ignite or explode if mixed with some other chemicals.

Methyl mercaptan would be transported to the compressor station via trucks carrying individual cylinders of the chemical. It is estimated that one delivery of two to three cylinders per week would be required. Methyl mercaptan is classified as hazard class 2.3 for toxic gases. The route for delivery would likely be along Fruitridge Road, from State Route 99 (SR-99) to the proposed compressor station. An alternate route is along Howe Avenue and Power Inn Road from Highway 50 (US-50) to Fruitridge Road.

As described in the Final EIR under Impact HAZ-1c, the hazardous materials transport accident/incident risk-per-mile specific to hazard class 2.3 (toxic gases) is 0.338 in one million. The route from SR-99 along Fruitridge Road to the proposed compressor station off of Food Link Street (in Depot Park) is approximately 4.3 miles each way, thus the probability of a hazardous materials incident occurring on this route is 2.18 in one million for each methyl mercaptan delivery. This estimate is conservative in that it accounts for the higher risk-per-mile rate of 0.507 instead of the chemical-specific rate of 0.338. Using the hazardous materials transport accident/incident risk-per-mile specific to hazard class 2.3, the risk of a hazardous materials incident occurring on this route is 1.45 in one million for each methyl mercaptan delivery.

The travel route from SR-99 along Fruitridge Road to the compressor station passes residential, commercial, and industrial developments. Additionally, an elementary school (Earl Warren Elementary School) is located near Fruitridge Road near Lowell Street, within 0.15 mile of the travel route. Additional schools are located within 0.25 mile of the travel route to the compressor station.

Using the same evaluation for the alternate travel route from US-50 along Howe Avenue and Power Inn Road, the risk of a hazardous material incident is 1.57 in one million for general chemicals or 1.05 in one million using the risk-per-mile rate specific to hazard

class 2.3 (toxic gases). The route from US-50 to the compressor station passes commercial, industrial, and recreational (Granite Regional Park) properties. There are no schools located within 0.25 mile of this alternate travel route. Another travel route option of a similar length and risk of hazardous materials incident from US-50 and Howe Avenue is via Folsom Boulevard, Jackson Road, and Florin Perkins Road instead of Power Inn Road. This route passes commercial, residential, and industrial properties.

Methyl mercaptan would likely be transported to the wellhead site either from SR-99 and Florin Road via Power Inn Road (2.5 miles) or from US-50 and Howe Avenue via Power Inn Road (3.4 miles). The route from US-50 passes by a school and is longer than the route from SR-99; therefore, the route from SR-99 is preferable.

Using the same evaluation for the travel route to the compressor station, the risk of a hazardous material incident along the route from SR-99 to the wellhead site is 1.27 in one million for general chemicals or less than one in a million (0.85 in one million) using the risk-per-mile rate specific to hazard class 2.3 (toxic gases). The route from SR-99 to the wellhead site passes commercial, industrial, residential, and recreational properties. There are schools located within 0.25 mile of this travel route. These schools include Earl Warren Elementary School near Fruitridge Road and Elder Creek Elementary School near Power Inn Road. Both are within approximately 0.15 mile of the route. The risk of a hazardous material incident along the route from US-50 (not the preferred route) to the wellhead site is 1.72 in one million for general chemicals and 1.15 in one million for toxic gases.

Another possibility is that the delivery route will be from the compressor station to the wellhead site. This travel distance is approximately 1.9 miles and passes mostly industrial and some residential properties. The risk of a hazardous material incident along this route is less than one in one million (0.96 in one million for general chemicals and 0.64 in one million for toxic gases).

Despite the low probability of an incident, impacts associated with hazardous materials delivery to the compressor station and wellhead site are considered significant due to the close proximity along travel routes to area schools and parks. Public health and safety impacts due to delivery of hazardous materials would be reduced to a less-than-significant level with implementation of Mitigation Measures HAZ-1c*i*, HAZ-1c*ii*, and HAZ-1c*iii*. These measures will ensure that the transporters comply with the regulations and by creating a route that will minimize potential exposure to a large number of people in the event of an accidental release.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact HAZ-1a, HAZ-1b, and HAZ-1c. Specifically, the CPUC finds that Mitigation Measures HAZ-1a through HAZ-1c*iii*, described below, will reduce impacts to hazardous materials, public health

and safety associated with storage, use, and transport of hazardous materials to a less-than-significant level.

HAZ-1a: Hazardous wastes generated during construction and operation of the Proposed Project shall be transported to an approved facility for the specific type of material.

HAZ-1b: SNGS, LLC shall contain drilling mud and cuttings from well drilling and HDD in portable tanks and shall remove and dispose of these at approved facilities for this type of waste.

HAZ-1c*i*: SNGS, LLC shall ensure that transportation of methyl mercaptan shall comply with all Department of Transportation (DOT), Caltrans, EPA, Department of Toxic Substances Control (DTSC), California Highway Patrol, and California State Fire Marshal regulations, including the Vehicle Code Section 32100 (Division 14.3) for transportation of inhalation hazards.

HAZ-1c*ii*: SNGS, LLC shall require that the route used to deliver methyl mercaptan be US-50 (instead of SR-99) and Howe Avenue to either Power Inn Road or to Folsom Boulevard, Jackson Road, and Florin Perkins Road. This will minimize exposure to sensitive receptors. This material shall only be transported during nighttime hours.

HAZ-1c*iii*: The methyl mercaptan shall be stored and used at the wellhead site in a specialized structure. The amount stored at the facility shall be limited to two cylinders. The delivery routes to the wellhead site shall be similar to that for the compressor station, except that only a portion of Power Inn Road shall be used.

Rationale for Finding: Implementation of Mitigation Measures HAZ-1a through HAZ-1c*iii*, as well as incorporation of APMs 7, 8, and 9 (as described in Final EIR Table B-5), would ensure that the storage, transport, and disposal of hazardous substances would comply with all applicable regulations adopted to protect public health and safety, and specify timing and routes of transport that would minimize the potential for public safety hazards. Together, these measures will reduce impacts related to hazardous materials, public health and public safety to less-than-significant levels.

Reference: Final EIR Section D.6, Hazardous Materials, Public Health and Safety, provides a complete assessment of the project impacts related to hazardous materials, public health and safety and presents mitigation measures. The Addendum to the Final EIR provides information regarding the purpose and contents of the Hazardous Materials Contingency and Health and Safety Plans, as required by APM 8 (see Final EIR Table B-5).

Impact HAZ-2: Potential to Expose People to a Significant Risk of Fire or Explosion

As described in Final EIR Section D.6.3.3, Hazardous Materials, Public Health and Safety Impact Analysis, Impact HAZ-2 relates to the potential impacts of release of natural gas from the Proposed Project. Natural gas may be released from the proposed pipelines due to structural failure, damage to the pipeline, operator error, or vandalism (Impact HAZ-2b, discussed below). In addition, there is a concern that natural gas may migrate from the reservoir through existing wells or cracks in the cap rock and impact residents living above the gas field (Impact HAZ-2a, discussed in Section IV.3 of these CEQA Findings of Fact).

Impact HAZ-2b: Potential for Release of Natural Gas and Resulting Fire and Explosion from Wellhead Site, Compressor Station, and Pipeline Segments 1 and 2

As described in Final EIR Section D.6.3.3, Hazardous Materials, Public Health and Safety Impact Analysis, due to controversy involving the pipeline hazard upset report prepared by EDM, a peer review of EDM's revised report was conducted by Richard Gustafson of Atkins International. These CEQA Findings of Fact reflect the risk analysis conclusions of the EDM study prepared for the project as modified by the review by Atkins.

The risk of fatality from a torch fire from the wellhead would be to individuals in the parking lot immediately south across Junipero Street from the southernmost well pad site location. The design of the wellhead would contain most torch fires below the 10-foot level. Therefore, the impact is considered less than significant with implementation of Mitigation Measure HAZ-2b*iii*. This measure provides for an independent, third-party design review of SNGS, LLC's construction drawings, supporting calculations, and specifications as well as monitoring and observation of construction to ensure compliance with all applicable laws, ordinances, regulations, and standards (LORS).

As described in Final EIR Section D.6.3.3, Hazardous Materials, Public Health and Safety Impact Analysis, the level of confinement within the compressor station is sufficient to provide a 5.5 psig peak overpressure (threshold level pressure of a gas from an explosion) in the vicinity of the compressors and other equipment. This level can result in serious injuries to those outdoors. However, since the site is not accessible to the public, these impacts can be mitigated to less-than-significant levels through implementation of Mitigation Measure HAZ-2b*viii*. This mitigation would include an evaluation of the structural components of the compressor station building and either provision of ventilation to prevent buildup of the gas within the building or to demonstrate the structural integrity and ability to contain an explosion.

The Final EIR, under impact HAZ-2b, divides the analysis for the potential release of natural gas from the pipelines into three segments: Segment two (low-pressure line), which is from the SMUD line to the compressor station and two segments (a long and a short segment) of pipeline segment one (high-pressure line) between the compressor

station and wellhead site. The two portions of segment one are divided by an automated block value. Tables 6.3.2-1 through 6.3.2-7 in Appendix B-1 of the Final EIR summarize the modeling results for torch fires. Flash fire results are shown in Tables 6.3.3-1 through 6.3.3-7 in Appendix B-1 of the Final EIR. The risks are summarized in the tables below (Final EIR Tables D.6-4 and D.6-5). These Final EIR tables summarize the aggregate risks of the pipelines and wellhead sites.

EIR Table D.6-4
Individual Risk (IR) versus Aggregate Risk

Item	Individual Risk (IR)	Aggregate Risk
Exposure Location	Single Specific Location	Cumulative, Along the Length of the Entire Project
Probability of Exposure	100% 24 hours per day, 365 days per year	Actual Value, Normally Less Than 100% Based on Realistic Probability of Exposure to Specific Hazard
Significance Threshold	1 : 1,000,000 Some Jurisdictions Only No Established Threshold in U.S. or California	No Known Established Threshold

Source: Final EIR Appendix B-1.

EIR Table D.6-5
Aggregate Risk Results, Pipeline Segments

Release Description	Residential Exposure (lineal feet)	Commercial or Public Exposure (lineal feet)	Aggregate Risk Annual Likelihood of Fatality
Low-Pressure Pipe Segment			
Indoor Explosion Full Bore Rupture	0	156	6.94×10^{-11}
Indoor Explosion 1-inch Release	0	0	0
Torch Fire Full Bore Rupture	0	500	6.82×10^{-8}
Torch Fire 1-inch Release	0	130	9.43×10^{-9}
Flash Fire Full Bore Rupture	0	156	2.50×10^{-9}
Flash Fire 1-inch Release	0	0	0
Total	N/A	N/A	8.01×10^{-8} 1 : 12,500,000
High-Pressure Long Pipe Segment			
Indoor Explosion Full Bore Rupture	0	504	2.24×10^{-10}

Release Description	Residential Exposure (lineal feet)	Commercial or Public Exposure (lineal feet)	Aggregate Risk Annual Likelihood of Fatality
Indoor Explosion 1-inch Release	0	0	0
Torch Fire Full Bore Rupture	0	2,854	2.96×10^{-7}
Torch Fire 1-inch Release	0	350	1.51×10^{-8}
Flash Fire Full Bore Rupture	0	504	8.07×10^{-9}
Flash Fire 1-inch Release	0	0	0
Total Pre-Mitigation	N/A	N/A	3.19×10^{-7} 1 : 3,130,000
High-Pressure Short Pipe Segment			
Indoor Explosion Full Bore Rupture	0	458	2.04×10^{-10}
Indoor Explosion 1-inch Release	0	0	0
Torch Fire Full Bore Rupture	1,910	742	4.08×10^{-7}
Torch Fire 1-inch Release	0	480	3.39×10^{-8}
Flash Fire Full Bore Rupture	0	458	7.34×10^{-9}
Flash Fire 1-inch Release	0	0	0
Total Pre-Mitigation	N/A	N/A	4.50×10^{-7} 1 : 2,220,000

Source: Final EIR Appendix B-1.

As discussed in Final EIR Section D.6, there is not a universal threshold for significance of individual risk and no threshold for aggregate risk has been developed. Further, the CPUC has not developed a rule or policy as to what levels would constitute a significant impact. Individual risks from the pipeline segments are below one in one million and therefore, are considered less than significant. Gustafson also considered individual risk from the Proposed Project to be less than significant (Appendix B-2 of the Final EIR). This analysis is not absolutely precise since it is based on statistical analysis of similar pipelines. However, it provides a reasonable estimate of the public risks posed. Although societal risk is based on the number of people exposed during an incident and the densities in the area may vary, it is anticipated that societal risks associated with a gas pipeline risk would be below potential thresholds and would be considered less than significant. Although the level is highly dependent on the population present, this impact would be less than significant in most population scenarios, based on a reasonable analysis, and on reasonable standards for acceptable risk. Notwithstanding this finding, additional measures have been included as mitigation to further reduce risks.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact HAZ-2b. Specifically, the CPUC finds that Mitigation Measures HAZ-2b*i* through HAZ-2b*ix,* described below, will reduce impacts to fire and explosion related to release of gas from the wellhead site, compressor station site, and pipelines segments one and two to a less-than-significant level.

HAZ-2b*i* The following mitigation shall be incorporated into the compressor station site:

- The compressor station shall be secured by two levels of security. The perimeter of the 382-acre industrial park is secured with a security fence and gate, with a 24-hour site security staff. The compressor station site itself will be surrounded by an 8-foot-high steel security fence with barbed wire, with gates maintained in a closed and locked default status, actuated with key cards.
- The station's control center, which is located at the compressor station site, shall be manned 24 hours per day.
- Emergency backup power shall be provided by a 75-kilowatt natural gas generator.
- Motion detectors shall be installed on posts along the perimeter security fence. Motion detected within the facility will result in an alarm and trigger the activation of security lighting during periods of darkness.
- A security lighting system shall be provided within the compressor station site. The system will be manually operated, but will have automatic activation in the event of an emergency alarm for fire, smoke, or intrusion.
- All buildings on the site shall be equipped with fire and smoke detectors. In addition, the compressor building will be equipped with heat and flash detectors. All sensors will be integrated into the control system with audible and visual alarms.
- Operators shall be trained and hold the required certifications for the operation of the compressor station and other facilities.

The additional measures shall also be provided:

- A service gap analysis shall be conducted at the applicant’s expense by a well control specialist to identify and recommend additional fire and explosions protection including but not limited to infrastructure improvements. The analysis shall include an evaluation of equipment and training for first responders to meet the strategies outline in the Emergency Action Plan. The applicant shall establish a funding

mechanism to cover one-time costs and continued costs relative to training and equipment for departments and for any infrastructure costs.

Service Gap Analysis as clarified in Section 3 of the Addendum to the Final EIR (pp. 14 and 15):

Purpose of Analysis: To determine additional public services that may be required to support the project either during operations or in the case of fire or explosion. This is in addition to the current emergency services provided by the City or County of Sacramento. The plan shall identify these additional services and methods for funding those services. The purpose of this plan is to minimize the environmental impacts to the greatest extent possible while recognizing that Impact HAZ-2a remains significant and unavoidable.

Content of Analysis: The analysis shall list personnel, services, and equipment necessary to respond to a public emergency. Services that are lacking or not sufficient shall be identified and a plan developed to provide the services, such that public safety is ensured through timely and robust emergency responses. The plan shall include those resources needed and the costs for providing the resources. The plan shall also identify the cost of these resources and how the applicant will finance those plans. Worst-case scenarios shall be discussed and planned for. The plan shall include the following elements:

- Identification of emergency agencies, equipment, and resources within a 100-mile radius of the project area. This analysis shall include an inventory of existing fire equipment, police, and fire/rescue assets.
- Analysis of equipment and personnel requirements under potential scenarios of release of gas and resulting fire and explosions.
- Identification of potential shortfalls of equipment and personnel and the cost to make up the shortfalls.
- Identification of fair-share funding for the applicant to provide these additional resources.

All measures addressed in this plan shall meet the requirements and needs of the reviewing and approving agencies as detailed at the time those agencies are reviewing the plan.

Reviewing and Approving Agencies: CPUC, City of Sacramento, County of Sacramento.

Mitigation Monitoring: The study shall be completed, approved, and implemented prior to storage of gas. This includes mechanisms for the applicant to fund these services prior to storage of gas in the reservoir.

- The applicant shall be required to retain the services of a company recognized as proficient in emergency response well control for the purpose of controlling and suppressing incidents beyond the technical proficiency of the City of Sacramento Fire Department. The firm selected shall be approved by the City of Sacramento Fire Department. Costs shall be paid by the applicant.
- City costs for emergency response including response by other departments shall be paid or guaranteed by the applicant in accordance with the Sacramento hazardous materials Emergency Response Ordinance.
- The Emergency Response Plan and Emergency Action Plan will be the same plan.

HAZ-2b*ii* The following mitigation shall be incorporated into the wellhead site portion of the project.

- The wellhead site shall be surrounded by a 10-foot-high masonry wall, with a security gate actuated by key card entry.
- The wells shall be provided with fire and gas detectors and will be under continual audio/video surveillance from the continually manned compressor station. They will also be provided with three emergency shutdown (ESD) valves: a subsurface down-hole ESD, an ESD located at the wellhead, and an ESD located at the pipeline interface. In the event that a high- or low-pressure alarm is set off, a fire alarm at the wellhead is detected, or potentially dangerous level of natural gas is detected, these ESD valves will automatically close in order to limit the supply of natural gas to the fire or leak.
- A third-party peer review shall be conducted by a well control specialist, under the supervision of the Sacramento City Fire Department and DOGGR.
- A backup power system shall be installed to provide electrical power in an emergency or power outage.
- A security lighting system shall be provided. The system will be manually operated but will have automatic activation in the event of an intrusion.
- Motion detectors shall be installed along the top, inside perimeter of the masonry wall. Motion detected within the facility will result in an alarm and trigger the activation of security lighting during periods of darkness.
- Security cameras shall be installed along the inside top of the masonry wall. Visual signals will be relayed to the Control Center 24 hours per day.

- All alarms at the wellhead site shall be monitored 24 hours per day at the Control Center.

HAZ-2b*iii* The CPUC shall conduct, or cause to be conducted in coordination with the DOT, an independent, third-party design review of the applicant's construction drawings, supporting calculations, and specifications and shall monitor and observe construction to ensure compliance with all applicable LORS. This review shall also include a review of the pipeline control and leak detection system to ensure that the system performance is consistent with the assumptions stated in Appendix B. The applicant shall make payments to the CPUC for these design review, plan check, and construction inspection services. These design review and construction observation services shall not in any way relieve the applicant of its responsibility and liability for the design, construction, operation, maintenance, and emergency response for these facilities.

HAZ-2b*iv* A 6-inch-wide polyethylene marker tape shall be installed approximately 18 inches below the ground surface, above the center of the pipeline. The marking tape shall be brightly colored and shall be marked with an appropriate warning (e.g., Warning—High Pressure Natural Gas Pipeline).

HAZ-2b*v* 100% of the circumferential welds shall be radiographically inspected in accordance with American Petroleum Institute (API) Standard 1104, Welding of Pipelines and Related Facilities. This shall be approved by the DOT.

HAZ-2b*vi* The applicant shall submit to the CPUC an operation and maintenance (O&M) manual, prepared in accordance with 49 CFR 192.605. The O&M manual shall address internal and external maintenance inspections of the completed facility, including but not limited to details of integrity testing methods to be applied, corrosion monitoring and testing of the cathodic protection system, and leak monitoring. In addition, the O&M manual shall also include a preventative mitigation measure analysis for the use of automatic shutdown valves per DOT Part 192.935(c) requirements. The O&M manual shall also incorporate all of the APMs.

HAZ-2b*vii* The applicant shall conduct an in-line inspection of the pipeline if the maximum allowable operating pressure (MAOP) creates a circumferential stress greater than 40% of the specified minimum yield strength (SMYS). The in-line inspection tool shall be capable of identifying pipe anomalies caused by internal and external corrosion and other causes of metal loss. The inspections shall be performed at regular intervals, in accordance with the applicant's integrity management program.

HAZ-2b*viii* The following mitigation measures shall be incorporated into the project by the applicant:

- The minimum depth of cover for each of the pipeline segments shall be 6 feet.
- 100% of the circumferential welds shall be inspected using radiographic techniques in accordance with API 1104.
- A sectionalizing valve shall be provided on the pipeline segment between the wellhead site and the compressor station.
- A control system and associated equipment shall be provided to facilitate ultra-fast closure of important safety valves, including those in the well field and on the pipeline segment between the well field and the compressor station.
- During periods where there is no flowing gas, the block valves at each end of each pipeline segment shall be closed, to "shut-in" the facilities. During non-operational periods, the pipeline segments shall be pressurized but shall be isolated from all natural gas sources.
- All pipeline segments shall be designed to Class 4 (most conservative) area classification per 49 CFR 192.
- Structural analysis of the compressor station building shall be conducted to either demonstrate that the building shall contain an explosion if a gas leak were to occur within the building or that the building will be designed to prevent a buildup of gas in the building.
- Body mass sensitive intrusion alarms shall be installed at the compressor station and wellhead.
- Multiple line-of-sight gas detectors couple to below wellhead and process perimeter shutdown valves.
- Pipeline leak detectors based on metered flow differences between the wellhead and compressor systems.

HAZ 2b*ix* An integrity management program for high consequence area (HCA) portions of the pipeline shall also be prepared in accordance with 49 CFR 192, Subpart O. The integrity management program shall be submitted to DOT and CPUC.

Rationale for Finding: The CPUC has conducted an exhaustive and thorough evaluation of potential risks addressed in this finding. In the absence of specific quantitative thresholds established for such risks, the CPUC has considered thresholds and standards applied internationally to disclose and characterize the potential risks of the project, pursuant to the requirements of CEQA. As a result, the analysis conducted represents a reasonable assessment and determination of potential risks of the project, and as such, the CPUC has concluded that the impacts are considered to be less than significant. In addition, Mitigation Measures HAZ-2b*i* through HAZ-2b*ix* have been included to

provide additional assurance that impacts related to hazardous materials, public health, and public safety are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.6, Hazardous Materials, Public Health and Safety, addresses the impacts to public health and safety associated with the risk of fire and explosion related to release of gas from the wellhead site, compressor station site, and pipelines segments one and two and presents mitigation measures. In addition, the Addendum to the Final EIR Section 3, Provision of Further Information on Mitigation Measures, provides clarifying information regarding the purpose and contents of the service gap analysis.

Impact HAZ-3: Potential for the Project to Emit Hazardous Emissions or Handle Acutely Hazardous Waste within 0.25 Mile of an Existing or Proposed School

Methyl mercaptan would be transported to the compressor station and wellhead sites via truck during nighttime hours. As discussed under Impact HAZ-1c in the Final EIR, the delivery of methyl mercaptan could pass within 0.15 mile of a school. Implementation of Mitigation Measures HAZ-1c*i*, HAZ-1c*ii*, and HAZ-1c*iii* will reduce impacts from transporting methyl mercaptan to less than significant

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact HAZ-3. Specifically, the CPUC finds that Mitigation Measures HAZ-1c*i*, HAZ-1c*ii*, and HAZ-1c*iii*, described above, will reduce impacts to transport of methyl mercaptan in the vicinity of schools to a less-than-significant level.

Rationale for Finding: The project-related impacts will be reduced to a less-than-significant level through implementation of Mitigation Measures HAZ-1c*i*, HAZ-1c*ii*, and HAZ-1c*iii*, because the procedures established for transportation of methyl mercaptan will ensure risk and exposure to sensitive receptors.is minimized. These measures will ensure that impacts associated with transport of methyl mercaptan are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.6, Hazardous Materials, Public Health and Safety, addresses the impacts associated with transport of methyl mercaptan and presents mitigation measures.

Impact HAZ-6: Exposure to Wildland Fires

Wellhead Site, Compressor Station, and Pipeline Segments 1 and 2

As discussed in Final EIR Section D.6, Hazardous Materials, Public Health and Safety, under Impact HAZ-6, construction of the Proposed Project would be partially within grassland areas that may be prone to fire during certain times of the year. The potential for a fire could occur during welding and other activities and is considered significant. However, with implementation of Mitigation Measure HAZ-6, which requires

preparation of a fire protection plan, impacts to wildland fires will be reduced to a less-than-significant level.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact HAZ-6. Specifically, the CPUC finds that Mitigation Measure HAZ-6, described below, will reduce impacts to wildland fire to a less-than-significant level.

HAZ-6 **Preparation of a Fire Protection Plan.** SNGS, LLC shall prepare a fire protection plan that shall be approved by the City of Sacramento Fire Department prior to construction. This plan shall include procedures to reduce the potential for creation of fires from welding and the provision of firefighting equipment and trained personnel to put out any fire that may be ignited.

Fire Protection Plan as clarified in Section 3 of the Addendum to the Final EIR (pp. 15 and 16):

> **Purpose of Plan:** The purpose of the plan is to identify the equipment, resources, and procedures that will be required to protect the project facilities, including well site and compressor station, as well as the surrounding community, from fire during construction and operation of the project, and to lessen the impacts created by exposure to wildland fires to less than significant. Only a portion of the project site within grassland areas are prone to wildland fires, primarily the pipeline alignment and the compressor station.
>
> **Contents of Plan**: The plan shall outline the firefighting and fire safety equipment that will be provided for each facility. The plan shall ensure that the necessary equipment is available and located on site in a manner easily and intuitively accessible. It shall also outline the training of personnel in firefighting techniques. BMPs should be incorporated as appropriate to ensure the public safety through a timely and robust response to any fires or threats thereof. The plan shall also outline notification of local fire departments and protocols for coordination with the fire department. Worst-case scenarios shall be discussed and planned for. At a minimum, the plan will include the following:
>
> - Procedures for minimizing potential ignition, including:
> - Vegetation clearing
> - Fuel modification establishment
> - Parking requirements
> - Smoking restrictions
> - Hot work restrictions
> - Red flag warning restrictions

- Fire coordinator role and responsibility
- Fire suppression equipment on site at all times work is occurring
- Emergency response and reporting procedures
- Emergency contact information
- Worker education materials; kick-off and tailgate meeting schedules
- All internal combustion engines, stationary and mobile, will meet applicable regulatory standards
- Provisions for fire safety and prevention during operations
- Fire suppression/detection systems
- Emergency shut-down provisions
- Emergency drill preparation
- Emergency evacuation plan
- Other information as provided by responsible fire agencies for the Proposed Project.

All measures addressed in this plan shall meet the requirements and needs of the reviewing and approving agencies as detailed at the time those agencies are reviewing the plan.

Reviewing and Approving Agencies: CPUC, DOGGR, City of Sacramento Fire Department, County of Sacramento Fire Department.

Mitigation Monitoring: The plan shall be approved before construction begins. Once the plan has been approved, the City of Sacramento Fire Department and CPUC shall ensure that the required equipment and notification procedures are in place prior to construction.

Rationale for Finding: The project-related impacts will be reduced to a less-than-significant level through implementation of Mitigation Measure HAZ-6, because the procedures established in the fire protection plan will ensure that impact-avoiding construction practices are followed and maintained throughout the construction phase of the project. This measure will ensure that impacts associated with wildland fires are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.6, Hazardous Materials, Public Health and Safety, addresses the impacts associated with exposure to wildland fires and presents mitigation measures. In addition, the Addendum to the Final EIR Section 3, Provision of Further Information on Mitigation Measures, provides clarifying information regarding the purpose and contents of the fire protection plan as required by Mitigation Measure HAZ-6.

IV.2.6 Hydrology and Water Quality

Final EIR Section D.7, Hydrology and Water Quality, describes the surface and groundwater hydrology and water quality for the project area. This information was obtained from existing data and studies, including aerial photos and other relevant resource documents available from local city, county, and state water agencies. The Final EIR addresses both hydrology and water quality impacts and presents mitigation measures.

Impact H-3: Impacts to Surface Waters

As described in Final EIR Section D.7, Hydrology and Water Quality, construction of pipeline segment one would require HDD to drill under Morrison Creek in order to avoid direct impacts to the creek. An inadvertent release of drilling mud (i.e., a frac-out) during the HDD under Morrison Creek could result in sedimentation and turbidity to nearby water resources and could potentially mix with contaminated groundwater associated with groundwater remediation at Depot Park. With incorporation of APMs 8 and 16 (which require preparation of a Hazardous Materials Contingency Plan, a Health and Safety Plan, an Emergency Response Plan, and a Bore Plan, as described in Final EIR Table B-5 and the Addendum) and implementation of Mitigation Measures H-3a and H-3b, impacts to surface waters would be reduced to a less-than-significant level.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact H-3. Specifically, the CPUC finds that Mitigation Measures H-3a and H-3b, described below, will reduce impacts to surface waters to a less-than-significant level.

H-3a Creek Crossing Procedures. Creek crossings shall be conducted in a manner that does not result in a sediment-laden discharge or hazardous materials release to the waterbody. The following measures shall be implemented during horizontal boring (jack and bore) operations:

(1) Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages.

(2) Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of the bank or wetland/riparian boundary for Morrison Creek. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention).

(3) Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times.

(4) Immediately following backfill of the bore pits, disturbed soils shall be seeded and stabilized to prevent erosion and temporary sediment barriers left in place until restoration is deemed successful.

(5) SNGS, LLC shall obtain the required permits prior to conducting work associated with HDD activities and provide proof to CPUC. Required permits may include ACOE CWA Section 404, RWQCB CWA 401, and CDFG Streambed Alteration Agreement 1602. SNGS, LLC shall implement all pre- and post-construction conditions identified in the permits issued for HDD activities.

H-3b (1) Prior to construction, SNGS, LLC shall consult with the Central Valley Regional Water Quality Control Board (CVRWQCB) to determine if an individual discharge permit is required for dewatering at any of the project sites anticipated to encounter groundwater. A copy of the permit or a waiver from the RWQCB, if required, shall be provided to the CPUC prior to dewatering.

(2) In addition, SNGS, LLC shall submit a typical dewatering drawing that shall be implemented during dewatering activities. The drawing shall include the location of pumps within secondary containment; fuel storage areas; anticipated discharge point; scour protection measures; intake hose screening; and monitoring procedures to ensure that hazardous materials spills are addressed in a timely manner and discharge hoses are frequently inspected for leaks.

Rationale for Finding: APMs 8 and 16 (which require preparation of a Hazardous Materials Contingency Plan, a Health and Safety Plan, an Emergency Response Plan, and a Bore Plan/Frac-out Contingency Plan; see Final EIR Table B-5 and the Addendum) and Mitigation Measures H-3a and H-3b will ensure that impacts to surface waters are avoided or reduced to less than significant. Specifically, the Bore Plan/Frac-out Contingency Plan will include specific measures for monitoring frac-out and containing drilling mud. These measures will avoid or reduce project-related impacts associated with surface waters to less-than-significant levels.

Reference: Final EIR Section D.7, Hydrology and Water Quality, addresses impacts related to surface waters and presents mitigation measures.

Impact H-4: Increased Runoff from New Impervious Areas and Alteration of Existing Drainage Patterns (Wellhead Site and Compressor Station)

As described in Final EIR Section D.7, Hydrology and Water Quality, construction of the wellhead site would increase the impervious surface area by approximately 0.2 acre, resulting in an approximately 11% increase in runoff. Further, construction activities on site could change the current drainage patterns, which could contribute to off-site runoff to surrounding areas, which would result in a potentially significant impact. With implementation of Mitigation Measure H-4a, which requires preparation of a Drainage Study and Shed Map, impacts to drainage would be reduced to less than significant.

Construction of the compressor station would increase the impervious surface area and alter existing drainage patterns of the approximately 5-acre site. The impervious surface area would increase by approximately 1 acre, resulting in an approximately 22% increase in runoff. Because 1 acre of impervious surface area will be added and on-site drainage patterns would be altered due to a new building on site, there could be a potential for a significant impact to runoff and changes to the existing drainage pattern on site. With implementation of Mitigation Measures H-4a and H-4b, which require preparation of a drainage study, shed map, and erosion and sediment control plans, impacts to increased runoff and drainage would be reduced to a less-than-significant level.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact H-4. Specifically, the CPUC finds that Mitigation Measures H-4a and H-4b, described below, will reduce impacts related to impervious surfaces and runoff to a less-than-significant level.

> **H-4a Drainage Study and Shed Map.** SNGS, LLC shall prepare a drainage study and shed map as described in Section 11.7 of the City of Sacramento's Design and Procedures Manual. The drainage study shall include an overland flow release map for the Proposed Project. Sufficient off-site and on-site spot elevations shall be provided in the drainage study to determine the direction of the storm drain runoff. The Department of Utilities shall approve this study and shed map. The on-site storm drain system shall be sized per the latest design runoff standards. Prior to design, SNGS, LLC will contact the Department of Utilities for the design criteria.
>
> The building pad elevations for the wellhead and compressor station sites shall be approved by the Department of Utilities and shall be a minimum of 1.7 feet above the local controlling overland release elevation or the finished floor elevation, or the finished floor elevation shall be a minimum of 1.7 feet above the local controlling overland flow release elevation, whichever is higher.
>
> Drainage and Grading Plans as clarified in Section 3 of the Addendum to the Final EIR (pp. 16 and 17):
>
> > **Purpose of Plan:** To provide detailed plans for grading and drainage of the facilities during and after construction, and to ensure that impacts from increased runoff from new impervious areas and alterations of existing drainage patterns are less than significant.
> >
> > **Contents of Plan:** The plan shall include detailed engineering drawings indicating grading that will be conducted at the facility sites and showing the drainage improvements that will be completed to accommodate flows generated from the project site. This plan, at a minimum, shall quantify and include the existing flows draining to existing storm drains and will identify whether any new facilities will be required in order to ensure that both on-site and off-site drainage facilities are sized to accommodate

existing and project-generated flows. All measures addressed in this plan shall meet the requirements and needs of the reviewing and approving agencies as detailed at the time those agencies are reviewing the plan.

Reviewing and Approving Agencies: CPUC and City of Sacramento.

Mitigation Monitoring: The plan must be submitted and approved before the start of construction.

H-4b Compliance with Grading, Erosion and Sediment Control Ordinance. SNGS, LLC shall comply with the City of Sacramento's Grading, Erosion, and Sediment Control Ordinance. This ordinance requires the applicant to prepare erosion and sediment control plans for both during and after construction of the Proposed Project and to prepare preliminary and final grading plans and plans to control urban runoff pollution from the project site during construction.

This project is greater than 1 acre in size; therefore, SNGS, LLC is required to comply with the state's National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction Activity (General Permit). To comply with the General Permit, SNGS, LLC will need to file an NOI with the SWRCB and prepare a Stormwater Pollution Prevention Plan (SWPPP) prior to construction. The SWPPP will be reviewed by the Department of Utilities prior to issuing a grading permit. The following items shall be included in the SWPPP: (1) vicinity map, (2) site map, (3) list of potential pollutant sources, (4) type and location of erosion and sediment BMPs, (5) name and phone number of person responsible for SWPPP, and (6) certification by property owner or authorized representative.

Erosion and Sediment Control Plan as clarified in Section 3 of the Addendum to the Final EIR (p. 17):

Purpose of Plan: To provide detailed engineering plans for the control of erosion and sediment in the ROWs of the pipelines and facility sites during construction, and to ensure that impacts from increased runoff from new impervious areas and alterations of existing drainage patterns are less than significant.

Contents of Plan: The plan shall provide detailed plans of erosions control structures, grading plans, and other procedures to control erosion and sedimentation during construction. Erosion control efforts, such as hay bales, covers, sediment fences, sensitive area access restrictions (e.g., flagging), and vehicle mats in wet areas, would be installed before extensive soil clearing and grading begins. Appropriate stabilization measures, such as mulching or seeding, would be used to protect exposed areas during construction activities. All measures addressed in this plan shall meet the requirements and needs of the reviewing and approving agencies as detailed at the time those agencies are reviewing the plan.

Reviewing and Approving Agencies: CPUC and City of Sacramento.

Mitigation Monitoring: The plan shall be approved before construction begins. The features of the plan shall be monitored during construction.

Stormwater Pollution Prevention Plan as clarified in Section 3 of the Addendum to the Final EIR (pp. 17 and 18):

Purpose of Plan: To provide design and process guidance to prevent contaminated stormwater from leaving facility sites during operation.

Contents of Plan: The plan shall provide engineering details and BMPs to capture and treat stormwater from the facilities prior to discharge to storm drains. As described above, the SWPPP shall include: (1) vicinity map, (2) site map, (3) list of potential pollutant sources, (4) type and location of erosion and sediment BMPs, (5) name and phone number of person responsible for SWPPP, and (6) certification by property owner or authorized representative. All measures addressed in the SWPPP shall meet the requirements and needs of the reviewing and approving agencies as detailed at the time those agencies are reviewing the plan.

Reviewing and Approving Agencies: CPUC, City of Sacramento, and Regional Water Quality Control Board.

Mitigation Monitoring: The plan shall be approved before construction begins. On-site inspections shall be conducted to ensure that design and BMPs are constructed as specified.

Rationale for Finding: The project-related impacts will be reduced to a less-than-significant level through adoption of Mitigation Measures H-4a and H-4b, which require preparation of a drainage study, shed map, and erosion and sediment control plans. These measures will ensure that the wellhead site is properly designed and graded to avoid adverse alterations to drainage patterns, and provide for runoff containment and infiltration that mitigates for the addition of 1 acre of impervious surfaces in the project area. As a result of implementation of these measures, impacts associated with increased runoff will be avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.7, Hydrology and Water Quality, addresses the impacts to hydrology and water quality and presents mitigation measures. In addition, the Addendum to the Final EIR Section 3, Provision of Further Information on Mitigation Measures, provides clarifying information regarding the purpose and contents of the drainage study and shed map (Mitigation Measure H-4a) as well as the erosion and sediment control plan and SWPPP required in Mitigation Measure H-4b.

***Impact H-5: Construction Impacts to Groundwater Disturbance and Water Quality Degradation* (*Wellhead Site and Pipeline Segments 1 and 2*)**

As described in Final EIR Section D.7, Hydrology and Water Quality, drilling of the wells on the wellhead site would use muds and other chemicals that could impact the quality of the aquifer. This would be in the initial placement of the casement into the cap rock. This impact is considered significant and can be reduced to less-than-significant levels with implementation of Mitigation Measure H-5b and APM 7. APMs applicable to hydrology and water quality are located in Final EIR Table D.7-3.

As described in Final EIR Section D.7, construction of pipeline segments one and two may create potential significant impacts to groundwater during HDD of Morrison Creek. This drilling activity may encounter groundwater that would impact the shallow aquifer, which is considered significant. With implementation of Mitigation Measures H-3b and H-5c, these impacts can be reduced to less-than-significant levels through dewatering of the trenches and proper disposal of the water.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact H-5. Specifically, the CPUC finds that Mitigation Measures H-5a through H-5c, described below, as well has Mitigation Measure H-3b above, will reduce construction impacts associated with groundwater disturbance and water quality degradation to a less-than-significant level.

H-5a Compliance with Regulations. SNGS, LLC and its contractors shall comply with all local, state, and federal regulations pertaining to stormwater and non-stormwater discharges.

H-5b Use of Non-Toxic Drilling Muds. SNGS, LLC and its contractors shall use non-toxic drilling muds during the drilling of the wells within the areas above the shale cap. Any contaminated drilling mud shall be disposed of at an approved facility.

H-5c Groundwater Procedures. If groundwater is encountered during the pipeline trenching or HDD, the site shall be dewatered prior to continuing construction. An NPDES permit shall be obtained for proper disposal of water. Treatment may be required prior to discharge.

Rationale for Finding: Mitigation Measures H-3b and H-5a through H-5c, in conjunction with APM 7 (APM described in Final EIR Table B-5), will reduce impacts related to groundwater disturbance and water quality to less than significant by providing dewatering of the trenches and proper containment and disposal of the water, and also by ensuring that no toxic substances are used on the trenchless drilling processes. These measures will ensure that impacts associated with groundwater disturbance and water quality during construction are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.7, Hydrology and Water Quality, addresses the impacts to hydrology and water quality and presents mitigation measures.

IV.2.7 Land Use, Agriculture and Recreation

Final EIR Section D.8, Land Use, Agriculture, and Recreation**,** describes existing land uses, land use plans and policies, and impacts to those land use plans and policies as well as to surrounding land uses. Land uses identified in the analysis include those that are located immediately adjacent to the project, that will be affected by construction and operation activities of the Proposed Project. Existing land use information was based on a review of aerial photographs, site visits, and a review of the SNGS, LLC's PEA and SNGS, LLC's PEA Addendum. Planned and proposed land use information was obtained from general and community plans for the City of Sacramento and the County of Sacramento. Other relevant land use plans, including applicable master plans and habitat conservation plans, were also reviewed. In addition, information was gathered through personal communication with the city and county planning staff as needed.

Impact LU-3: Disruption of an Established Land Use

As described in Final EIR Section D.8, Land Use, Agriculture, and Recreation Resources, construction activities associated with the wellhead site, compressor station site, and pipeline segments one and two would have the potential to disrupt land uses adjacent to each respective project site for short periods. Construction activities for the wellhead site and installation of pipeline segment one would temporarily affect Power Inn Road and would temporarily and indirectly impact the residences situated west of Power Inn Road and workers in surrounding industrial facilities to the north, east, and west. Interruptions to traffic on Power Inn Road may occur during pipeline installation, resulting in disruptions to established land uses due to lane closures and interference with local transit services. The pipeline segment one would be constructed within an existing utility easement, so no direct road work would be required. However, hauling and delivery of oversized loads may occasionally require temporary lane closure along the proposed pipeline alignment route to minimize potential impacts with regular traffic. Construction of pipeline segment two would tie in at Fruitridge Road. Traffic impacts could occur along Fruitridge Road, where pipeline segment two would connect to the existing SMUD pipeline. Construction activities would be required within the roadway, resulting in interruptions to traffic on Fruitridge Road from lane closures and potential interference with local transit services. To reduce construction-related impacts at the wellhead site, compressor station site, and pipeline segments one and two to less than significant, Mitigation Measures LU-3a (construction notification) and LU-3b (public liaison and information hotline) are provided. In addition, APMs include preparation of a traffic control plan along with Mitigation Measures T-1a and T-1b, described in Final EIR Section D.12, Transportation and Traffic, which would further reduce impacts to established land uses resulting from construction. A description of APM 11 is provided in Final EIR Section B, Description of Proposed Project, Table B-5, Applicant Proposed Measures.

Indirect impacts to residences west of the wellhead site and pipeline segment one include temporary exposure to dust that could settle on parked cars, window ledges, and other exposed horizontal surfaces from trenching and backfilling activities. These impacts would also be discernable by surrounding workers on adjacent industrial lands to the north, east, and south. Temporarily, noise impacts could also be audible surrounding the project site. Equipment such as concrete saws, pavement-breaking machines, jackhammers, backhoes, and other powered construction equipment that would generate noise could disturb nearby residents and employees. Depending on weather conditions, odor emissions from diesel construction equipment might be discernible by the nearest individuals. Although the noise, dust, and diesel odors generated during construction would constitute a minor nuisance to adjacent residences, the construction would be of short duration. SNGS, LLC would adhere to City ordinances governing noise generation during construction activities and would adhere to all regulations concerning fugitive dust, such as maintaining "wet-down" conditions during construction in order to reduce particulate dust emissions. Additional measures are proposed; however, in order to reduce construction-related disturbances to surrounding land uses to less than significant. Mitigation Measures LU-3a (construction notification) and LU-3b (public liaison and information hotline) address potential impacts to residents and employees surrounding the project site.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact LU-3. Specifically, the CPUC finds that Mitigation Measures LU-3a (construction notification) and LU-3b (public liaison and information hotline), described below, will reduce impacts to land use to a less-than-significant level.

LU-3a Provide Construction Notification and Minimize Construction Disturbance. SNGS, LLC or its construction contractor shall provide advance notice, between 2 and 4 weeks prior to construction, by mail to all residents or property owners within 300 feet of the Proposed Project. The announcement shall state specifically where and when construction will occur in the area. Notices shall provide tips on reducing noise intrusion, for example, by closing windows facing the planned construction. SNGS, LLC shall also publish a notice of impending construction in local newspapers, stating when and where construction will occur. Prior to construction, copies of all notices shall be submitted to the CPUC.

SNGS, LLC shall construct during the night in areas where a local jurisdiction requests such timing to reduce construction disruption, if it can be demonstrated that significant noise impacts would not occur. Whether requested by either SNGS, LLC or the local jurisdiction, SNGS, LLC shall provide written evidence of local jurisdiction approval to the CPUC prior to the start of any night work. SNGS, LLC shall also provide analysis of noise impacts and proposed mitigation measures for any residents or other sensitive land uses that would be affected by nighttime construction.

LU-3b Provide Public Liaison Person and Information Hotline. SNGS, LLC shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring residents about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public in accordance with Mitigation Measure LU-3a. SNGS, LLC shall also establish a telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures shall be submitted to the CPUC for review and approval prior to construction and bi-monthly.

Rationale for Finding: Traffic disruptions that may occur during construction will be avoided and minimized through proper signage and directional devices, as well as restrictions on lane closures, which would be outlined in a traffic control plan identified in Mitigation Measures T-1a and T-1b. The traffic control plan will minimize land use conflicts associated with traffic disruptions. In addition, Mitigation Measures LU-3a and LU-3b provide a means for notification and communication of any potential indirect effects associated with construction that may result in land use conflicts, thereby reducing such conflicts by facilitating any necessary corrective action. These measures will ensure that impacts associated with land use are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.8, Land Use, Agriculture, and Recreation Resources, addresses construction-related impacts to established land uses and presents mitigation measures.

IV.2.8 Public Services and Utilities

Public service and utilities were addressed in the EIR based on analysis of existing service and utilities systems and determining the need for additional public services and utilities as a result of the Proposed Project. Existing information was based on a review of the SNGS, LLC's PEA. In addition, service and utility information was obtained from general plans for the City of Sacramento and the County of Sacramento as well as Internet research and written and personnel communications with service agencies as needed.

Impact U-1: Utility System Disruptions

As described in Final EIR Section D.11, Public Services and Utilities, utilities such as water, wastewater, and natural gas pipelines, petroleum product pipelines, and electric and phone/fiber-optic cable lines may be buried in the vicinity of the Proposed Project components or beneath roads and sidewalks crossed by the proposed natural gas transmission lines. Construction of pipeline segments one and two, as described in Final EIR Section B.2.2, would require construction in an existing utility easement and under the railroad ROW, respectively. Overhead electrical lines run along the west side of the wellhead site within the easement and partially along the railroad ROW. Short-term electrical service interruptions could occur. While electric service disruptions would be temporary in nature, these disruptions could impact nearby businesses and hinder activities in the surrounding area. In addition, utilities such as underground water and

sewer lines are generally found within roadways. Road work would not be necessary within the City or County of Sacramento except along Fruitridge Road, where the proposed pipelines would connect to existing SMUD pipeline. Therefore, there would be potential for service interruptions of water and sewer utilities during construction. Though temporary in nature, the potential for disruptions to existing utilities is considered a significant impact. Mitigation Measures U-1a through U-1d would mitigate impacts associated with utility disruptions to less-than-significant levels.

As described in Final EIR Section D.11, Public Services and Utilities, installation of underground pipeline segments one and two involves construction activities in close proximity to existing utilities. Consequently, there is potential for the proposed pipeline segments to increase cathodic-induced corrosion of steel pipelines, which could lead to long-term accidental system disruption of such pipelines. This potential maintenance problem with existing and future utilities is considered a significant impact. Mitigation Measure U-1e provides mitigation to reduce indirect impacts from accelerated corrosion to a less-than-significant level.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact U-1. Specifically, the CPUC finds that Mitigation Measures U-1a through U-1e, described below, will reduce impacts to utilities service disruptions to a less-than-significant level.

U-1a **Notice of Service Disruption.** Prior to construction during which a utility service interruption is known to be unavoidable, SNGS, LLC shall notify members of the public affected by the planned outage of the impending interruption. Copies of the notices and dates shall be provided to the CPUC at the time the notices are distributed to the public and to the City of Sacramento Fire Department.

U-1b **Notification to Underground Service Alert.** Underground Service Alert shall be notified a minimum of 48 hours in advance of earth-disturbing activities in order to identify buried utilities. After probing the corridor for existing utilities, exact placement of the connecting pipeline(s) shall be determined so that placement of new structures will not conflict with other co-located utilities.

U-1c **Coordination with Affected Jurisdictions.** During project design, SNGS, LLC shall coordinate with each jurisdiction affected by the underground pipeline segments to determine the exact location for placement of the pipelines to avoid conflicts with planned and proposed utility projects and any relocation of existing utilities occurring within the direct vicinity of the project.

Coordination with the following jurisdictional departments shall occur in conjunction with final design of the underground natural gas pipelines:

- City of Sacramento Development Services
- City of Sacramento Department of Utilities

- Applicable phone, cable, and fiber-optic companies
- Applicable natural gas and energy companies
- Sacramento County Water Agency.

Documentation of coordinating efforts and local jurisdiction approval of final design plans for the underground pipelines shall be provided to the CPUC prior to the start of construction activities.

Final Design Plans as clarified in Section 3 of the Addendum to the Final EIR (pp. 19 and 20):

Purpose of Plan: To provide detailed project design of project facilities, and to ensure that impacts related to utility system disruptions are less than significant.

Contents of Plan: Full plan specifications and final design for pipeline, compressor station, wellhead site, and other facilities. All design measures addressed in this plan shall meet the requirements and needs of the reviewing and approving agencies as detailed at the time those agencies are reviewing the plan.

Reviewing and Approving Agencies: CPUC; City of Sacramento; DOGGR; DOT, Division of Pipeline Safety.

Mitigation Monitoring: Final design is to be completed and approved before project construction begins.

U-1d Protection of Underground Utilities. Prior to construction of the underground pipelines, SNGS, LLC shall submit to the CPUC written documentation demonstrating coordination with the appropriate jurisdictions, including the following:

(1) Construction plans designed to protect existing utilities and showing the dimensions and location of the finalized alignment

(2) Records that the applicant provided the plans to affected jurisdiction for review, revision, and final approval

(3) Evidence that the project meets all necessary local requirements

(4) Evidence of compliance with design standards

(5) Copies of any necessary permits, agreements, or condition of approval

(6) Records of any discretionary decisions made by the appropriate agencies.

U-1e Utilities Protection Against Corrosion. SNGS, LLC shall evaluate the potential for the underground pipelines to increase corrosion on existing pipelines. If this potential is determined to exist, SNGS, LLC shall be responsible for installation of the required cathodic protection systems that would reduce corrosion potential. A letter documenting these consultations and their results, including concurrence

by the affected jurisdiction(s) and other companies, shall be provided to the CPUC prior to the start of construction.

Rationale for Finding: The proposed Mitigation Measure U-1a will minimize effects related to service disruption by providing adequate notification and planning by the agencies responsible for service delivery, and by the public. Mitigation Measures U-1b through U-1e ensure that proper investigation of existing facilities and planning for the new facilities will avoid and minimize damage to those existing facilities. These measures will ensure that impacts associated with utility disruptions are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.11, Public Services and Utilities, addresses the impacts to utility systems and presents mitigation measures. The Addendum to the Final EIR provides additional information regarding the purpose and contents of final design plans for pipeline design as required by Mitigation Measure U-1c.

Impact U-2: Public Service System Disruption

As described in Final EIR Section D.11, Public Services and Utilities, implementation of the Proposed Project could result in significant impacts to fire and police services both during the construction phase and during any potential emergency event dealing with pipeline incidents or with any gas leak. Operation of the Proposed Project would result in the storage of natural gas underground along with the wellhead, compressor station, and required connecting pipelines. Consequently, as further discussed in Final EIR Section D.6, Hazardous Materials, Public Health and Safety, operation of the project would result in increased risk of fire and/or explosion, resulting in an increased demand for local emergency services, including fire protection. Gas well firefighting strategies and tactics require infrastructure, equipment, and training that the Sacramento Fire Department (SFD) does not currently provide. In addition, SFD does not have adequate training for the types of emergencies that could occur at the facility, nor do they have a way to maintain any such training within the department at this time. This could require additional services and personnel from the SFD in terms of inspection of facilities during construction and operation. This is considered a significant impact but would be mitigated to less than significant with implementation of Mitigation Measure U-2.

Further, activities associated with the installation of pipeline segments one and two could require lane closures and could impact traffic from the presence of construction vehicles and equipment. Consequently, the possibility exists for interference with emergency service providers (i.e., ambulance, fire, paramedic, and police vehicles). This is considered a significant impact and would be mitigated to a level that is less than significant with implementation of Mitigation Measure T-6 (see Final EIR Section D.12.5). Mitigation Measure T-6 includes requirements for the applicant to coordinate in advance of construction with emergency service providers and to have provisions ready at all times to accommodate emergency services, such as providing short detours when necessary.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact U-2. Specifically, the CPUC finds that Mitigation Measure U-2, described below, will reduce impacts to public service disruptions to a less-than-significant level.

Mitigation Measure for Impact U-2: Public Service System Disruption

U-2 SNGS, LLC shall coordinate with the City of Sacramento and reimburse the city for their fair share of additional equipment and personnel as determined by the city's needs study. The department is contracting with technical experts to evaluate the capabilities of the department and surrounding public and private infrastructure for the purpose of identifying areas requiring mitigation. Once identified, mitigating action costs, both one-time and recurring, are to be borne by SNGS, LLC. Additionally, SNGS, LLC's Emergency Response Plan shall have provisions to reimburse the City of Sacramento for any costs of responding to an emergency, as well as damage caused by a project-related incident. The Emergency Response Plan shall be submitted to the SFD for review and approval prior to construction.

Emergency Response Plan/Emergency Action Plan as clarified in Section 3 of the Addendum to the Final EIR (p. 19):

> **Purpose of Plan:** The plan shall outline potential accidents to the public associated with fire, explosion, and release of natural gas, and the steps to be taken in response to such incidents, with the goal of ensuring that impacts created by public service system disruption will be less than significant.
>
> **Contents of Plan**: The plan shall outline the types and scenarios of anticipated accidents, including rupture of pipelines, fire/explosion at compressor station and wellhead site, as well as migration of natural gas into groundwater and the surface. Worst-case scenarios shall be discussed and planned for. For each scenario, the requirements for emergency response shall be described, both for incident response and evacuation/sheltering of the public. This plan shall include the emergency response resources needed prior to and during an emergency, the availability and location of those resources, and possible duration of the types of scenarios and the length of period that the resources would be required. BMPs shall be incorporated to ensure the public safety through a robust and timely emergency response. All measures addressed in this plan shall meet the requirements and needs of the reviewing and approving agencies as detailed at the time those agencies are reviewing the plan.
>
> **Reviewing and Approving Agencies:** CPUC, City of Sacramento, and County of Sacramento.
>
> **Mitigation Monitoring:** The plan must be approved before construction begins. Once the plan is reviewed and approved, the City of Sacramento and CPUC shall ensure that the elements of the plan are implemented.

Rationale for Finding: Mitigation Measure U-2 will minimize effects related to service disruption by providing necessary funding to the agencies responsible for service delivery to account for additional planning, staffing, and equipment needed to compensate for potential service disruptions. Mitigation Measure T-6 also includes requirements for the applicant to coordinate in advance of construction with emergency service providers and to have provisions ready at all times to accommodate emergency services, such as providing short detours when necessary. This measure avoids potential construction-related traffic conflicts with emergency service delivery vehicles. These measures will ensure that impacts associated with public service disruptions are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.11, Public Services and Utilities, addresses the impacts to utility systems and presents mitigation measures.

Impact U-3: Project-Required Utility and Public Service Demands

As described in Final EIR Section D.11, Public Services and Utilities, dewatering activities requiring discharge into a sanitary sewer system could occur in highly urbanized areas if other dewatering processes do not meet local water quality requirements. Mitigation Measure U-3 would ensure coordination with local sewer system operators and reduce impacts to a less-than-significant level.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact U-3. Specifically, the CPUC finds that Mitigation Measure U-3, described below, will reduce impacts to the wastewater system to a less-than-significant level.

U-3 Notice and Approval of Water Discharge. Prior to discharging any water into a local wastewater pipeline or facility, SNGS, LLC shall contact the City of Sacramento and Sacramento Regional County Sanitation District for approval. All discharges shall be in accordance with all local, state, and federal regulations pertaining to wastewater disposal.

Rationale for Finding: The project would not result in significant impacts related to increases in demand for public utilities or services, because demand increases are limited to construction activities, which are short term in nature, and do not place substantial demand on services or utilities. Nevertheless, Mitigation Measure U-3 provides assurances that the applicant will properly coordinate with utility and service providers, and will comply with applicable regulations related to discharges to the sanitary sewer. This measure will ensure that impacts associated with public services and utility demands are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.11, Public Services and Utilities, addresses the impacts to public service disruptions and presents mitigation measures. In addition, the Addendum to the Final EIR Section 3, Provision of Further Information on Mitigation Measures, provides clarifying information regarding the purpose and contents of project

final design plans (Mitigation Measure U-1c) as well as the Emergency Response Plan/Emergency Action Plan as discussed in Mitigation Measure U-2.

IV.2.9 Transportation and Traffic

Final EIR Section D.12, Transportation and Traffic, evaluates the potential impacts of the Proposed Project to surrounding roadways, transit and rail service, airports, and bicycle facilities. The study area for the transportation and traffic analysis includes roadways directly affected by the Proposed Project and alternatives. The information is based on the analysis of existing information and studies, including general and master plans for the City of Sacramento and the County of Sacramento; Internet research for roadway, transit, rail, airport, and bus route information; and personnel communications with agency staff.

Impact T-1: Road and Lane Closure

As described in Final EIR Section D.12, Transportation and Traffic, hauling and delivery of oversized loads may occasionally require temporary lane closure along the proposed pipeline segment one alignment route to minimize potential impacts with regular traffic. Construction of pipeline segment two and the proposed tie-in with SMUD Line 700 beneath Fruitridge Road would likely require lane closure(s) on eastbound Fruitridge Road. Temporary lane closures and associated safety concerns, increased traffic levels, and constrained circulation associated with temporary road closures is considered a significant impact, and would be mitigated to less than significant with implementation of Mitigation Measures T-1a and T-1b.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact T-1. Specifically, the CPUC finds that Mitigation Measures T-1a and T1-b, described below, will reduce impacts to lane closures to a less-than-significant level.

T-1a **Prepare Traffic Control Plan.** Prior to the start of construction, SNGS, LLC shall submit a Traffic Control Plan (TCP) to the City of Sacramento and the SFD. The city has jurisdiction over public roads that will be affected by underground construction activities as part of the required traffic encroachment permits. The public roadways that may be affected by construction activities are Power Inn Road, Junipero Street, Caroline Drive, and Fruitridge Road. The TCP shall define the locations of all roads that will need to be temporarily closed due to construction activities, including hauling of oversized loads by trucks, and trenching activities (pursuant to Sacramento Municipal Code (SMC) Section 12.16.020, temporary street closures require a permit from the city manager (Sacramento, City of 2000)). Input and approval from the City of Sacramento and SFD shall be obtained and copies of approval letters from each jurisdiction must be provided to the CPUC prior to the start of construction within the jurisdiction. The TCP shall define the use of flag persons, warning signs, lights, barricades, and cones according to standard guidelines outlined in the Caltrans *Construction*

Manual (2007), the *Standard Specifications for Public Works Construction* (Public Works Standards 2006), and the *Work Area Traffic Control Handbook* (WATCH) (American Public Works Association 2006). Documentation of the approval of these plans and the issuance of encroachment permits (if applicable) shall be provided to the CPUC prior to the start of construction activities that require temporary closure of a public roadway.

Traffic Control Plan as clarified in Section 3 of the Addendum to the Final EIR (p. 20):

Purpose of Plan: To provide vehicle safety and reduce traffic congestion during construction, and to ensure that impacts related to construction generated traffic are less than significant.

Contents of Plan: The plan shall outline measures to control traffic during construction. This plan shall include lane closures, barricade placement, traffic congestion, and timing of construction for each facility and construction phase including such items as staggered employee shift hours and truck scheduling to avoid peak traffic hours. All measures addressed in this plan shall meet the requirements and needs of the reviewing and approving agencies as detailed at the time those agencies are reviewing the plan.

Reviewing and Approving Agencies: CPUC and City of Sacramento.

Mitigation Monitoring: The plan shall be prepared and approved before construction begins. Measures in the plan shall be monitored during construction of all facilities.

T-1b **Restrict Lane Closures.** SNGS, LLC shall restrict all necessary lane closures or obstructions on major roadways associated with underground construction activities to off-peak periods in urbanized areas to mitigate traffic congestion and delays. Lane closures in urbanized areas must not occur between 6:00 a.m. and 9:30 a.m. and between 3:30 p.m. and 6:30 p.m., or as directed in writing by the affected public agencies. Where feasible, nighttime construction with steel plates covering trenches during the day will be implemented, subject to the approval of agencies having jurisdiction over such measures. All trenching activities within the City of Sacramento shall comply with SMC Section 12.12.070 requirements that, "no trench shall be opened in any street for the purpose of laying pipes, conduits, or ducts more than four hundred (400) feet in advance of the pipe, conduit, or ducts being placed in the trench, except when the prior written consent of the director has been obtained" (Sacramento, City of 2000).

Rationale for Finding: Traffic disruptions that may occur during construction will be avoided and minimized through proper signage and directional devices, as well as restrictions on lane closures, which would be outlined in a traffic control plan identified in Mitigation Measures T-1a and T1-b. The traffic control plan will minimize land use conflicts associated with traffic disruptions. These measures will ensure that impacts associated with transportation systems are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.12, Transportation and Traffic, addresses the impacts to road and land closures and presents mitigation measures. In addition, the Addendum to the Final EIR Section 3, Provision of Further Information on Mitigation Measures, provides clarifying information regarding the purpose and contents of the Traffic Control Plan (Mitigation Measure T-1a).

Impact T-2: Construction-Generated Traffic

As described in Final EIR Section D.12, Transportation and Traffic, during construction activities, between 150 and 200 total employees would be required along pipeline segments one and two, at the wellhead site, and at the compressor site. The anticipated construction-related traffic would create a short-term and limited impact on traffic volumes and may change traffic patterns such as to affect the level of service (LOS) or volume-to-capacity ratio on the study area roadways. Mitigation Measure T-2 and APM 11, which require SNGS, LLC to prepare a traffic control plan, will ensure that traffic congestion and delays due to project-related construction traffic are mitigated to a level that is less than significant.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact T-2. Specifically, the CPUC finds that Mitigation Measure T-2, described below, will reduce impacts to construction-generated traffic to a less-than-significant level.

T-2 **Traffic Control Plan to Reduce Construction-Related Traffic.** The traffic control plan described in Mitigation Measure T-1a shall also provide measures to ensure that traffic congestion and delay resulting from project construction are minimized by incorporating features such as:

- **Staggered Shift Hours.** During the peak period of construction activity, construction shifts shall be staggered to the degree possible, such that employee arrivals and departures from the site will avoid local roadway peak hours (7:30–8:30 a.m. and 4:30–5:30 p.m.) in the project vicinity. In order to minimize potential impacts to Fruitridge Road during the proposed tie-in to SMUD Line 700, construction activities shall occur during off-peak nighttime hours. Trench plates shall be used to facilitate daytime traffic operations; however, pursuant to SMC 12.20.040, trench plates shall not be utilized for more than 3 calendar days in any location.
- **Truck Scheduling.** Construction-related truck traffic shall be scheduled to avoid travel during peak periods of traffic on the surrounding roadways. Similarly, delivery of required piping and construction materials shall be coordinated to avoid delivery during peak periods of traffic.

Rationale for Finding: Traffic disruptions that may result from the addition of construction traffic on local roadways will be avoided and minimized through proper scheduling and sequencing of construction traffic, which would be outlined in a traffic

control plan, as identified in Mitigation Measure T-2. This measure, in conjunction with APM 11 (as described in Final EIR Table B-5), will ensure that impacts associated with construction traffic are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.12, Transportation and Traffic, addresses the impacts of construction-generated traffic and presents mitigation measures.

Impact T-3: Physical Impacts to Roads and Sidewalks

As described in Final EIR Section D.12, Transportation and Traffic, project construction activities would cause physical impacts to area roads and sidewalks. Activities such as grading of roadway ROWs to provide a level work area and trenching activities to install the proposed pipeline sections would cause temporary damage. In addition, heavy construction vehicle use could cause damage along the pipeline route and at other project component sites. Mitigation Measure T-3 will ensure that physical impacts to roads and sidewalks are mitigated to less than significant.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact T-3. Specifically, the CPUC finds that Mitigation Measure T-3, described below, will reduce impacts to roads and sidewalks to a less-than-significant level.

T-3 **Repair Damaged Roadways and Sidewalks.** If damage to roads, sidewalks, and/or medians occurs, SNGS, LLC shall coordinate repairs with the affected public agencies to ensure that any damage is adequately repaired. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces. Care shall be taken to prevent damage to roadside drainage structures. Roadside drainage structures and road drainage features (e.g., rolling dips) shall be protected by regrading and reconstructing roads to drain properly. Said measures shall be incorporated in an access agreement/easement with the applicable governing agency prior to construction.

Underground trenching activities in roadways shall require returning the affected roadways to previous conditions pursuant to the affected jurisdiction's encroachment permits and franchise agreements.

Rationale for Finding: Mitigation Measure T-3 provides for repair of any damage to local roadway facilities that may occur as a result of construction, thereby compensating for any adverse effects and ensuring that impacts associated with construction activity on transportation systems are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.12, Transportation and Traffic, addresses physical impacts to roads and sidewalks and presents mitigation measures.

Impact T-5: Interference with Pedestrian/Bicycle Circulation and Safety

As shown in Final EIR Table D.12-4 (Section D.12, Transportation and Traffic), pedestrian and bicycle circulation could be affected along Power Inn Road and Fruitridge Road by construction activities if pedestrians and bicyclists were unable to pass through the construction zones or if established pedestrian and bike routes are blocked. Additionally, since there may be disruption to bicycle routes or paths, sidewalks and shoulders, pedestrians and bicyclists may enter the affected streets and highways and risk a vehicular-related accident. Open trenches along the pipeline corridor could present safety issues to pedestrians and bicyclists. This is considered a significant impact and would be mitigated to a less-than-significant level with implementation of Mitigation Measure T-5.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact T-5. Specifically, the CPUC finds that Mitigation Measure T-5, described below, will reduce impacts to interference with pedestrian/bicycle circulation and safety to a less-than-significant level.

T-5 Pedestrian and Bicycle Safety. Where construction would result in temporary closures of sidewalks and other pedestrian facilities, SNGS, LLC shall provide temporary pedestrian access through alternative routes avoiding the construction areas. Affected pedestrian facilities and the alternative facilities or detours to be provided shall be identified in the traffic control plan. Where construction activity will result in bike route or bike path closures, appropriate detours and signs shall be provided. Where construction will affect bicycle travel on streets without bicycle facilities or in areas where pedestrians could enter, requirements for barricades to prevent entry or for plates to cover trenches will be used in accordance with the permit requirements of the local jurisdiction.

Rationale for Finding: Mitigation Measure T-5 will reduce conflicts and interference with pedestrian and bicycle traffic by coordinating alternate routes, and providing signage and detours that will safely convey traffic around construction areas. This measure will ensure that impacts associated with pedestrian and bicycle traffic disruption are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.12, Transportation and Traffic, addresses the impacts to pedestrian and bicycle safety and presents mitigation measures.

Impact T-6: Interference with Emergency Response

As described in Final EIR Section D.12, Transportation and Traffic, pipeline construction activities (as well as construction activities at the wellhead site and compressor station) could potentially interfere with emergency response by ambulance, fire, paramedic, and police vehicles due to brief roadway closures (discussed previously in Impact T-1). This is considered a significant impact, and would be mitigated to a less-than-significant level with implementation of Mitigation Measure T-6.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact T-6. Specifically, the CPUC finds that Mitigation Measure T-6, described below, will reduce impacts to emergency response to a less-than-significant level.

T-6 Ensure Emergency Response Access. SNGS, LLC shall coordinate in advance with local jurisdictions to avoid restricting movements of emergency vehicles. SNGS, LLC shall request that police departments, fire departments, ambulance services, and paramedic services be notified in advance by each jurisdiction of the proposed location, nature, timing, and duration of the construction activities and advised of any access restriction that could negatively affect their emergency response times. If necessary, SNGS, LLC shall assist local jurisdictions to ensure that such emergency services are informed of the previously mentioned kinds of logistics related to construction activities. If project construction would block access to nearby property, provisions shall be ready at these locations at all times to accommodate emergency vehicles, such as plating over excavations, short detours, and alternate routes, in conjunction with local agencies. The traffic control plan (Mitigation Measure T-1a) will include details regarding coordination of emergency services and will identify procedures to ensure effectiveness of emergency services along project area roadways.

Rationale for Finding: Mitigation Measure T-6 includes requirements for the applicant to coordinate in advance of construction with emergency service providers and to have provisions ready at all times to accommodate emergency services, such as providing short detours when necessary. This measure avoids potential construction-related traffic conflicts with emergency service delivery vehicles, and thereby provides assurance that impacts associated with emergency response access are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.12, Transportation and Traffic, addresses the impacts to interference with emergency response and presents mitigation measures.

Impact T-9: Restricted Access to Properties

As described in Final EIR Section D.12, Transportation and Traffic, access to driveways could temporarily be blocked within the construction zone, thereby affecting access and parking for the adjacent residences, institutions, businesses, and other uses. Impacts associated with restricted access to properties during pipeline construction are considered significant and will be mitigated to a less-than-significant level with implementation of Mitigation Measures T-1a, T-9a, and T-9b.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact T-9. Specifically, the CPUC finds that Mitigation Measures T-1a (described previously) and T-9a and T-9b, described below, will reduce impacts to access restrictions during construction to a less-than-significant level.

T-9a **Notification of Potential Obstructions.** SNGS, LLC shall notify affected parties of potential obstructions and will make provisions for alternative access. Alternative access provisions will be provided by SNGS, LLC where feasible, with guide signs to inform the affected parties and the public. SNGS, LLC shall give written notification to all landowners along the ROW of the construction schedule and shall explain the exact location and duration of construction activities proposed for the wellhead site, compressor station, and pipeline alignment route and construction activities within each street (i.e., which lanes will be temporarily closed, at what times of the day, and on what dates). SNGS, LLC shall identify locations of any potential access obstruction and shall make alternative access provisions. Written notification shall include telephone numbers for SNGS, LLC's public relations liaison and shall encourage affected parties to voice their concerns with SNGS, LLC prior to the start of construction activities so that individual problems and solutions may be identified. Alternative access provisions shall include SNGS, LLC-provided signage and if necessary, alternative parking as provided and approved by local agencies, as well as open trenches to be covered during periods of inactivity with steel plates to provide maximum weight allowance for anticipated traffic.

T-9b **Scheduling and Notification.** SNGS, LLC shall schedule construction so that at least one access driveway of affected businesses is left unblocked during all business hours or hours of use. This scheduling shall be provided by SNGS, LLC to the affected tenants so they can inform employees.

Rationale for Finding: Traffic disruptions that may result from conflicts with local access will be avoided and minimized through proper notification, scheduling, and sequencing of construction traffic, which would be specified in a traffic control plan, and as outlined in Mitigation Measures T-9a and T-9b. Alternative access would also be provided so as to avoid blockage of driveways and access. These measures will ensure that impacts associated with public access are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.12, Transportation and Traffic, addresses the impacts to access restrictions and presents mitigation measures.

IV.2.10 Visual Resources

Final EIR Section D.13, Visual Resources, addresses the visual resources of the project area and the potential visual effects of the Proposed Project and alternatives. The project area for visual resources encompasses the on-site landscapes directly affected by the Proposed Project's components and the surrounding off-site areas that would be within view of the Proposed Project actions. The visual analysis is based on a review of relevant government plans and policies regarding visual resources, independent site evaluations, and a review of SNGS, LLC's PEA, PEA Addendum, and deficiency responses.

Impact V-1: Short-Term Visual Impacts

As described in Final EIR Section D.13, Visual Resources, nighttime lighting at the wellhead site would occur on a daily basis during wellhead drilling. The nighttime light and glare associated with this construction activity is considered a temporary significant impact; however, with implementation of Mitigation Measure V-1, this impact would be reduced to a less-than-significant level.

Findings. The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant effects on the environment from Impact V-1. Specifically, the CPUC finds that Mitigation Measure V-1, described below, will reduce impacts due to nighttime lighting at the wellhead site to a less-than-significant level.

V-1 **Lighting Direction.** Site lighting shall be hooded and directed toward the interior of the wellhead, compressor station, and HDD drilling locations

Rationale for Finding: Visual effects from construction equipment would be less than significant due to the short-term nature and limited scope of construction activities. Potentially significant night lighting of construction areas will be avoided through control of the lateral spread of construction lighting, as specified in Mitigation Measure V-1. This measure will ensure that associated with construction lighting impacts are avoided or reduced to less-than-significant levels.

Reference: Final EIR Section D.13, Visual Resources, addresses the impacts to nighttime lighting and presents mitigation measures.

IV.3 Significant Environmental Impacts That Cannot be Avoided or Reduced to a Less-Than-Significant Level

Based on the resource area assessment in the Final EIR, the Commission has determined that the project will have significant impacts in the issue areas discussed below and that these impacts cannot be reduced to less than significant. These findings are based on the discussion of impacts that are described in detail in Section D of the Final EIR. For each significant and unavoidable impact, the Commission has made a finding pursuant to PRC Section 21081. An explanation for the finding is also presented below.

IV.3.1 Hazardous Materials, Public Health and Safety

Final EIR Section D.6.3, Impact HAZ-2 describes the potential impacts of release of natural gas from the Proposed Project. Natural gas may be released from the proposed pipelines due to structural failure, damage to the pipeline, operator error, or vandalism (Impact HAZ-2b, discussed in Section IV.2.5 of the CEQA Finding of Fact). In addition, there is a concern that natural gas may migrate from the reservoir through existing wells or cracks in the cap rock and impact residents living above the gas field (Impact HAZ-2a, discussed below).

Impact HAZ-2a: Potential Impact from Gas Leaking From the Gas Reservoir after Repressurization of the Gas Field for Gas Storage

As described in Final EIR Section D.6.3, concerns raised during public scoping for the project include the potential for gas to migrate to the surface from the repressurized reservoir. This gas could then enter structures or other confined spaces to create concentrated gas in structures that could become a health hazard or explosive. There would also be a concern that gas could concentrate within confined spaces such as manholes or utility bunkers and potentially asphyxiate a person entering the space. Fugitive gas migrating near the surface could accumulate under impervious or semipervious pavement or concrete slabs underlying structures, streets, or parking lots and could migrate laterally within underlying porous materials such as gravel/sand layers beneath slabs, gravel/sand road base, or within the gravel/sand material used to provide bedding for pipelines in trenches.

As described in Final EIR Section D.6.3, there is a remote potential that gas could migrate to the surface from around or through the cap rock, either through existing fractures or faults or other discontinuities in the cap rock. There is sufficient information to conclude that the leakage of stored gas into the overlying groundwater aquifer and perhaps to the ground surface is unlikely to occur. There is insufficient information to conclude categorically that stored gas migration to the overlying groundwater aquifer and/or ground surface would not occur. Therefore, it is assumed that there is a low potential that gas could migrate to the overlying groundwater aquifer and/or to the ground surface. Gas migration could result in groundwater impacts, health effects, and potentially flash fires or explosions. Therefore, this impact is considered significant. Despite implementation of APM 5 and Mitigation Measures HAZ-2a*i* and HAZ-2a*ii*, which would reduce this already low potential, this impact would remain significant and unavoidable for the following reasons:

1. A release of natural gas, even with a low probability, has a potential for substantial consequences from fire and explosions due to the project area having high population densities. Although Mitigation Measure HAZ-2*ai* would reduce the already low probability by conducting further testing of the cap rock to ensure release of gas would not occur, the possibility of a release of gas would still remain.
2. While Mitigation Measure HAZ-2*aii* would mitigate for any possible release of natural gas by depressurizing the reservoir, there will be a lag in the time to remediate any gas migration from the time gas is detected and the reservoir is depressurized.

Finding: The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant impacts on the environment from Impact HAZ-2a to the extent feasible. Specifically, the CPUC finds that even with the implementation of Mitigation Measures HAZ-2a*i* and HAZ-2a*ii*, described below, the potential for fire and explosion associated with a release of gas cannot be reduced to less-than-significant levels and will remain a significant and unavoidable impact.

HAZ-2a*i* SNGS, LLC shall conduct laboratory tests of cores and may also conduct in situ (in place) bore-hole tests of the cap rock structure. These tests shall include determination of the cap rock strength properties to facilitate assessment of the cap rock integrity relative to the projected pressures exerted by the stored natural gas. These tests will also provide data that allows assessment of the effects of the cycling of gas pressure during operation of the gas storage facility. These tests shall determine the properties of the cap rock itself, including permeability and strength of the cap rock within the range of the projected gas storage pressures. These tests shall be monitored and approved by the DOGGR who will review tests relative to the proposed storage pressure prior to allowing the storage of natural gas. Results of the studies shall also be made available to Sacramento County Department of Environmental Management and the RWQCB.

HAZ-2a*ii* SNGS, LLC shall develop a gas detection plan at key points within the area over the Florin Gas Field. The plan will include the installation of monitoring wells for detection of anomalous pressure changes in the deep groundwater aquifer immediately above the cap rock structure. These wells shall be equipped with instrumentation to monitor and record (with electronic data loggers) aquifer pressure, temperature, and other parameters as needed. The number, location, depth, screened interval, and instrumentation of the deep aquifer monitor wells will be selected jointly by qualified petroleum industry and groundwater experts. The intent of the deep aquifer wells is to allow detection of the anomalous pressure, which is a way to tell if there is leakage of stored gas into zones above the cap rock from the underlying Florin Gas Field. One monitoring station shall be included at the Florin Portable Water Storage Reservoir.

This plan shall also include gas detection instruments, well probes, and sampling of the aquifer for entrained natural gas. This plan shall be reviewed and approved by DOGGR where applicable, the City of Sacramento Fire Department, City of Sacramento Department of Utilities, Regional Water Quality Control Board, and the Sacramento County Environmental Management Department prior to implementation and shall include natural gas detectors at strategic locations. In the event that natural gas is detected and confirmed to be seeping from the reservoir, the gas reservoir shall be reduced to lessen and eliminate the potential for seepage. The deep aquifer monitoring will commence prior to repressurizing the Florin gas reservoir, so that baseline conditions can be established, including ambient levels of natural gas if present.

The four primary elements of this gas monitoring mitigation measure are:

1) Establish a baseline or background level for natural gas at the surface prior to storage operations. This will allow comparison and sound evaluation of future project-related gas monitoring results.

2) Periodically measure for levels of detectable gas at predetermined surface locations. This will allow the storage operator to ascertain whether the levels of gas detected at the surface, if any, have increased noticeably above the previously established background levels. It is expected that small variations may occur, which may not individually rise to any significant level but trends over several sample periods could provide an indication of a change that requires further investigation.

3) Quantify and, if necessary, qualify any changes in an attempt to identify the source. First, based on sampling and testing of gas samples, it should be determined whether the gas quality signature is similar to the native gas production in the area or to pipeline gas. Gas in the storage reservoirs will be almost exclusively pipeline gas with components that should be relatively easy to identify compared to native gas.

4) Based on any specific changes observed, the operator shall respond to the data and corresponding analysis with additional testing, surveillance, or mitigation, as appropriate. If the data indicates that any detected surface gas is from the storage operation, then a plan will be developed to identify the leaking pipeline, well or reservoir, including procedures to further test and correct the situation. If it appears that the source of the gas is related to a non-storage facility, the operator should attempt to identify the owner or operator of that facility and inform them of the findings of the study. The overall gas monitoring program will be evaluated after 5 years to determine its future usefulness.

The monitoring program will consist of the following features:

- Permanent monitoring/testing sites at the project wellhead site and compressor station site
- Leakage surveys at predetermined locations on a regular basis
- Utilize standard, industry-approved gas measurement equipment
- Field personnel trained on gas sampling methods and instrumentation, identifying stressed vegetation and other indicators of potential leakage.

Two permanent test stations will be located at the wellhead site. Two additional test stations will be installed at the compressor station site. Additional sites for sampling shall be identified in the sampling plan. Baseline measurements, using portable analytical gas instruments, will be made within 48 hours of the installation of the test station. Portable

> analytical gas instruments will consist of infrared gas analyzers or other combustible gas analyzers. Flame Ionization Detectors (FIDs) may be used as the primary detector for monitoring. All portable analytical gas equipment will be calibrated daily using a laboratory-certified methane calibration gas. All test sites will be identified and all test data will be gathered and recorded. The testing program will be conducted prior to initiation of injection of gas and weekly thereafter. Water quality information shall be made available to the City of Sacramento Department of Utilities.

Gas Detection Plan as clarified in Section 3 of the Addendum to the Final EIR (p. 14):

> **Purpose of Plan:** This plan shall outline location and methods of monitoring natural gas that could reach the surface. The purpose of this plan is to minimize the environmental impacts to the greatest extent possible while recognizing that Impact HAZ-2a remains significant and unavoidable.
>
> **Contents of Plan:** There are four primary elements of this plan: establishing a baseline, periodic measurements; quantifying and qualifying any changes, and responding appropriately.
>
> **Reviewing and Approving Agencies:** CPUC and City of Sacramento.
>
> **Mitigation Monitoring:** The plan must be approved before construction begins. Once the plan is approved, the CPUC and City shall ensure that the plan is implemented prior to injecting gas into the reservoir. This will be an ongoing requirement throughout the duration of the gas storage project.

Rationale for Finding: Even with the implementation of Mitigation Measures HAZ-2a*i* and HAZ-2a*ii* as well as APM 5 (as described in Final EIR Table B-5) , the potential for release of gas from unknown flows in the reservoir cap cannot be assured, even though this potential is very low. Due to the consequences of such a release in a highly populated area such as the project site, the impact remains significant and unavoidable.

Reference: Final EIR Section D.6, Hazardous Materials, Public Health and Safety, provides a complete assessment of hazardous materials and public health and safety impacts of the project and presents mitigation measures. In addition, the Addendum to the Final EIR Section 3, Provision of Further Information on Mitigation Measures, provides clarifying information regarding the purpose and contents of the gas detection plan (Mitigation Measure HAZ-2a*ii*).

IV.3.2 Hydrology and Water Quality

Final EIR Section D.7.3, Impact H-8 describes the potential impacts due to possible contamination of the groundwater aquifer through migration of natural gas stored in the underground reservoir. Should contamination of the aquifer occur, it could be substantial

requiring a prolonged period of remediation, thereby impacting the water quality of a major potable aquifer.

Impact H-8: Operation and Maintenance Impacts to Surface Water and Groundwater Quality

As described in Final EIR Section D.7, Hydrology and Water Quality, implementation of the Proposed Project will present the potential of contamination of the groundwater aquifer through the storage of natural gas. Of concern would be the contamination of the aquifer through migration of gas into the aquifer. There is sufficient evidence to conclude that the leakage of gas into the overlying groundwater aquifer is unlikely to occur. However, there is insufficient information to conclude categorically that gas migration to the overlying aquifer would not occur. Therefore, it is assumed that there is a low potential that gas could migrate into the aquifer; however, should this migration occur, the gas could contaminate the aquifer. This contamination could be substantial requiring a prolonged period of remediation and impacting the water quality of a major potable aquifer. This is considered a significant and unavoidable impact even with the implementation of Mitigation Measures H-8a, H-8b, and HAZ-2a*i*, due to the consequence if it were to occur and the difficulty of remediating the contamination.

Finding: The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant impacts on the environment from Impact H-8 to the extent feasible. Specifically, the CPUC finds that even with the implementation of Mitigation Measures H-8a and H-8b, described below, and HAZ-2a*i* described under Section IV.3.1, above, the potential for contamination of the aquifer associated with a release of gas cannot be reduced to less-than-significant levels and will remain a significant and unavoidable impact.

H-8a Spill Prevention, Control, and Countermeasure Plan. SNGS, LLC shall prepare a Spill Prevention, Control, and Countermeasure (SPCC) Plan in accordance with 40 CFR 112. A copy of the plan shall be submitted to the CPUC prior to project start-up. This plan shall include methods for erosion control, control and use of hazardous materials, location of fueling, and other protection methods.

Spill Prevention, Control, and Countermeasure Plan as clarified in Section 3 of the Addendum to the Final EIR (p. 18):

> **Purpose of Plan:** To control erosion and spills during construction of facilities. The purpose of this plan is to minimize the environmental impacts to the greatest extent possible while recognizing that groundwater contamination remains significant and unavoidable.
>
> **Contents of Plan:** The plan shall follow the 2010 National Pollution Discharge Elimination System (NPDES) General Permit issued by the California State Water Resources Control Board. The SPCC plan shall identify operating procedures that the facility will implement to prevent oil spills; control measures installed to

prevent oil from leaving the project site; and countermeasures to contain, clean up, and mitigate the effects of an oil spill. The plan shall also include BMPs and methods for erosion control, control and use of hazardous materials, location of fueling, and the implementation of other protection methods to the maximum extent feasible. Worst-case scenarios shall be discussed and planned for. A copy of the plan shall be kept on site at the facility and made available for review by the U.S. Environmental Protection Agency (EPA) Regional Administrator during normal business hours. The plan shall be amended as required by 40 CFR 112. The plan shall be reviewed, evaluated, and updated (if necessary) every 5 years. All measures addressed in this plan shall meet the requirements and needs of the reviewing and approving agencies as detailed at the time those agencies are reviewing the plan.

Reviewing and Approving Agencies: CPUC and Central Valley Regional Water Quality Control Board.

Mitigation Monitoring: The CPUC shall ensure that the plan is prepared according to standards prior to the start of construction and implemented throughout the construction process. The plan must be approved before construction begins.

H-8b Groundwater Monitoring Wells. SNGS, LLC shall develop groundwater monitoring wells at the wellhead site. These should be in place and a groundwater quality baseline developed prior to any drilling activities. Groundwater quality shall be monitored in both the shallow and deeper aquifers. In the event that hydrocarbon levels above baseline are detected, gas storage activities shall be suspended and the reservoir allowed to depressurize until the source of this contamination is found and corrected. Remediation may also be required if hydrocarbons contaminate the water column. Potential remediation methods shall also be identified. Because the duration of this impact and the effectiveness of this mitigation measure—specifically remediation, if required—are not known, the impact remains significant and unavoidable. The plan shall be reviewed by both DOGGR and the RWQCB.

Groundwater Monitoring Plan as clarified in Section 3 of the Addendum to the Final EIR (pp. 18 and 19):

Purpose of Plan: This plan must be prepared in conjunction with the water quality sampling plan and gas detection plan. The purpose of the plan will be to monitor the groundwater levels and pressures in the aquifer to detect if the gas in the reservoir is moving vertically through the cap rock. The purpose of this plan is to minimize the environmental impacts to the greatest extent possible while recognizing that groundwater contamination remains significant and unavoidable,

Contents of the Plan: The plan shall include location of monitoring wells, a description of pressure measuring devices, and methods for recording pressures. The plan shall also include how baseline pressures will be determined, describe the

steps to be taken in response to pressure changes, and the procedures for depressurization of the reservoir. Worst-case scenarios shall be discussed and planned for. All measures addressed in this plan shall meet the requirements and needs of the reviewing and approving agencies as detailed at the time those agencies are reviewing the plan.

Reviewing and Approving Agencies: CPUC, DOGGR, City of Sacramento, and Central Valley Regional Water Quality Control Board

Mitigation Monitoring: The CPUC and DOGGR shall ensure that the plan is prepared, approved, and implemented before the facility begins operation, and that the plan is followed during operation of the facility. The monitoring plan and any potential remediation shall be under the supervision of DOGGR and the Central Valley Regional Water Quality Control Board.

Rationale for Finding: Even with the implementation of Mitigation Measures H-8a (preparation of an SPCC) and H-8b (groundwater monitoring wells), as well as Mitigation Measure HAZ-2a*i* (requiring laboratory tests of cores of the cap rock structure), the potential for release of gas from unknown flows in the reservoir cap cannot be assured, even though this potential is very low. Due to the consequences of such a release resulting in the contamination of a valuable aquifer in a populated area, the impact remains significant and unavoidable.

Reference: Final EIR Section D.7, Hydrology and Water Quality, provides a complete assessment of impacts to operation and maintenance resulting from the project to groundwater and presents mitigation measures. In addition, the Addendum to the Final EIR Section 3, Provision of Further Information on Mitigation Measures, provides clarifying information regarding the purpose and contents of the SPCC Plan as required by Mitigation Measure H-8a, as well as the groundwater monitoring plan as required by Mitigation Measure H-8b.

IV.3.3 Noise and Vibration

Final EIR Section D.9.3, Impact N-1 describes the potential construction-related impacts due to 24-hour-a-day, 7-day-a-week drilling activities at the wellhead site, which could impact residents across Power Inn Road.

Impact N-1: Construction Activities Would Temporarily Increase Local Noise Levels

As described in Final EIR Section D.9, Noise and Vibration, the closest sensitive noise receptors are located in the vicinity of the proposed wellhead site and consist of residential units located approximately 200 feet across Power Inn Road. Development of the wellhead site would take approximately 3 months to complete as each well requires approximately 8 days to drill. Noise during drilling operations will produce noise levels that would exceed the City's noise standard at the nearest sensitive receptor. 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 would remain significant and unavoidable due to drilling operations.

Finding: The CPUC finds that changes or alterations have been incorporated into the project that mitigate significant impacts on the environment from Impact N-1 to the extent feasible. Specifically, the CPUC finds that even with the implementation of Mitigation Measures N-1a through N-1e, the potential generation of short-term construction noise cannot be reduced to less-than-significant levels and will remain a significant and unavoidable impact.

N-1a **Timing of Construction Activities.** SNGS, LLC shall conduct construction activities between 7:00 a.m. and 6:00 p.m. Monday through Saturday and 9:00 a.m. to 6:00 p.m. Sunday or for a shorter period if so stipulated in the relevant local noise ordinance. Exceptions shall only apply to drilling operations associated with the proposed wellhead and HDD construction.

N-1b **Temporary Noise Barriers.** SNGS, LLC shall install temporary noise barriers between well drilling and HDD equipment and sensitive receptors. Temporary noise barriers shall be installed between the drilling rig and nearby receptors such that noise levels at nearby residences are reduced. Depending on the length of the noise barrier, it may need to be repositioned after drilling of each well has been completed and the drilling rig has been repositioned. The height and location of the noise barrier shall be determined based on the size of the drilling rig to be used and the location of the proposed wells, and shall be included in a drilling plan submitted to CPUC and the City of Sacramento for review and approval. Exceptions shall apply only upon approval by the city. It is estimated that the barriers will result in a 5 to 10 dBA attenuation, which may still result in nighttime noise impacts.

N-1c **Advanced Notice to Sensitive Receptors.** SNGS, LLC or its construction contractor shall provide advanced notice, between 2 and 4 weeks prior to construction, by mail to all sensitive receptors and residences within 300 feet of construction sites, staging areas, and access roads. The announcement shall state specifically where and when construction would occur in the area. If construction delays of more than 7 days occur, an additional notice shall be made, either in person or by mail. Notices shall provide tips on reducing noise intrusion; for example, by closing windows facing the planned construction. The notice shall also advise the recipient on how to inform the applicant/contractor if specific noise- or vibration-sensitive activities are scheduled so that construction can be rescheduled, if necessary, to avoid a conflict. SNGS, LLC shall also publish a notice of impending construction in local newspapers, stating when and where construction will occur. Prior to public notification, copies of all notices shall be submitted to the CPUC for review and approval.

N-1d **Dedication of a Public Liaison.** SNGS, LLC shall identify and provide a public liaison before and during construction to respond to concerns of neighboring receptors, including residents, about noise construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public in accordance with Mitigation Measure N-1c. SNGS, LLC shall also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers. Prior to public notification, procedures included in the notices shall be submitted to the CPUC for review and approval. SNGS, LLC shall provide the CPUC with a bimonthly letter reporting the number of calls received and a summary of caller concerns and how concerns were addressed.

N-1e **Use of Appropriate Mufflers.** Construction equipment, excluding HDD drilling equipment, shall be equipped with the appropriate mufflers to reduce noise impacts.

Rationale for Finding: Even with the implementation of Mitigation Measures N-1a through N-1e, the potential for short-term construction-related noise cannot be reduced to less-than-significant levels during phases of construction because no feasible mitigation measures are available to affect such a reduction.

Reference: Final EIR Section D.9, Noise and Vibration, provides a complete assessment of impacts to short-term construction-related noise related to the Proposed Project and presents mitigation measures.

V. Findings on Rejected Mitigation Measures

No mitigation measures have been rejected.

VI. Alternatives to the Project

In total, 18 alternatives in addition to the No Project Alternative were considered in the alternatives screening process (see Final EIR Section C.3, Summary of Screening Results). Alternatives considered included six alternative storage site locations within Sacramento County and in close proximity to SMUD's service area; possible combination of these alternative gas storage sites; alternative storage sites outside the Sacramento area; seven project design alternatives as identified by SNGS, LLC for the proposed Florin Gas Field project; as well as three alternatives to natural gas storage. Alternatives to natural gas storage include methods of meeting project objectives that do not require development of a new underground natural gas storage facility (e.g., additional natural gas supply, energy conservation, and/or alternative fuels). The CPUC hereby finds that all of the alternatives eliminated from further consideration in the Draft EIR are infeasible, would not meet most project objectives and/or would not have the potential to avoid or substantially lessen the significant effects of the Proposed Project, as summarized in Table C-1 of the Final EIR (pp. C-8 to C-11).

Six alternatives to the Proposed Project were carried forward for detailed analysis in the EIR: three alternative gas field locations (Freeport Gas Field, Snodgrass Slough Gas Field, and Thornton Gas Field), as well as three alternative pipeline routes between the proposed wellhead site and proposed compressor station as identified by SNGS, LLC. Each of these alternatives meets most or all project objectives; is feasible from a technical, legal, and regulatory standpoint; and potentially avoids or reduces environmental effects of the Proposed Project. The EIR also analyzed a "No Project" alternative.

VI.1 Gas Field Alternatives

Freeport Gas Field

The Freeport Gas Field is located on a suburban fringe site and is partially located under the Sacramento Regional Wastewater Treatment Plant (SRWTP). Working gas storage capacity in this field is estimated to be over 1 bcf. Development of this field would involve constructing facilities similar to those required for the Proposed Project, including injection/withdrawal wells, compressor station, and connecting pipeline(s) between the wells and compressor station, as well as an interconnecting pipeline from the gas field to SMUD's natural gas pipeline system. Connection to the SMUD system would require the construction of a 16-inch interconnect pipeline for approximately 1 mile through rural areas.

Findings/Rationale. The CPUC finds that specific economic, legal, social, technological, and other considerations, including those considerations set forth in the EIR, make this alternative economically infeasible, and therefore rejects this alternative. The Freeport Gas Field would permit approximately 1+ bcf of working gas storage capacity. The revised development cost estimate for this alternative is $85.1 million with an annual cash flow after the first year of operation of -$13.5 million and a net income of -$8.83 million decreasing to -$133.97 million after 10 years of operation. The equity balance after 10 years of operation would be -$119.14 million. Given the relatively low return on investment, it is doubtful that the alternative would be financially feasible.

Because the Freeport Gas Field cannot produce a positive cash flow or net income, it is not capable of being constructed and operated in a successful manner within a reasonable amount of time. Compared to its potential profitability, the costs of constructing and operating the Freeport Gas Field are sufficiently severe to render it impractical to proceed with its development. For these reasons, the Freeport Gas Field alternative is economically infeasible.

As described in Final EIR Section E.2.2, Gas Field Alternatives, the Freeport Gas Field alternative would result in similar impacts to the environment as those for the Proposed Project. As with the Proposed Project, the Freeport Gas Field alternative would result in the following significant Class I impacts:

(1) Hazardous materials, public health and safety impacts because of the potential for hazards, including release of natural gas. Although located in a less-densely

populated area than the Proposed Project, public health and safety impacts to nearby Elk Grove would remain significant and unmitigable (Impact HAZ-2a). This is due both to the increased length of the proposed pipeline and the fact that there would be a substantial number of people that could be affected by the release of natural gas.

(2) Hydrology and water quality impacts due to potential release of gas as a result of a failure of the cap rock resulting in contamination of the aquifer, which could affect the local drinking water supply (Impact H-8). Due to the location of this alternative site in a less populated area, the impact would be reduced, as it would affect fewer people's drinking supply; however, it would remain a significant and unmitigable impact since it would result in contamination of an aquifer.

When compared to the Proposed Project, Class I construction noise impacts would be eliminated at the Freeport Gas Field alternative site.

The Freeport Gas Field alternative would eliminate the unmitigable short-term construction noise impact, as it is anticipated that required well drilling would not occur near sensitive receptors. Impacts to biological resources, cultural resources, hydrology and water quality, land use, agriculture, and recreation would be greater due to the rural character of the site. Impacts to air quality would be similar during operation; however, impacts would be slightly less during project construction due to a shorter construction period. Impacts to public services and utilities would be slightly less due to the decreased pipeline length and the potential to increase conflicts with existing utilities and to cause public service disruptions. Visual resource impacts would be similar to those of the Proposed Project because a portion of the gas field is currently a wastewater treatment plant. Geology and soils impacts would be similar because geologic conditions are similar to those of the Proposed Project. Impacts to population and housing under this alternative would be similar to the Proposed Project. This alternative would not result in significant environmental justice issues since it would not place a large number of facilities in the area and presumably land owners would receive royalties from the project. Noise and transportation/traffic would be less due to avoiding a more densely populated area.

Snodgrass Slough Gas Field

The Snodgrass Slough Gas Field is located in an agricultural area. To the east and adjacent of the field is the Reclamation District 551 Borrow Canal. Walnut Grove, located approximately 4 miles to the south of the site, is the nearest population center with a population of 669 people (U.S. Census 2000[5]). Working gas storage capacity in this field is estimated to be greater than 2 bcf. Development of this field would involve constructing facilities similar to those required for the Proposed Project, including injection/withdrawal wells, compressor station, and connecting pipeline(s) between the

[5] U.S. Census (U.S. Census Bureau). 2000. *U.S. Census Bureau American Fact Finder*. Data Year 2000. Accessed online: http://factfinder.census.gov/home/saff/main.html?_lang=en

wells and compressor station, as well as an interconnecting pipeline from the gas field to SMUD's natural gas pipeline system. Connection to the SMUD system would require the construction of an approximately 16-inch interconnect pipeline for approximately 5 miles. Construction of this interconnect pipeline would require HDD across the slough, I-5, and the UPRR.

Findings/Rationale. The CPUC finds that specific economic, legal, social, technological, and other considerations, including those considerations set forth in the EIR, make this alternative economically infeasible, and therefore rejects this alternative. The Snodgrass Slough Gas Field would permit approximately 2+ bcf of working gas storage capacity. The revised development cost estimate for this alternative is $105.8 million with an annual cash flow after the first year of operation of -$14.9 million and a net income of -$9.04 million decreasing to -$132.6 million after 10 years of operation. The equity balance after 10 years of operation would be -$114.13 million. Given the relatively low return on investment, it is doubtful that the alternative would be financially feasible.

Because the Snodgrass Slough Gas Field cannot produce a positive cash flow or net income, it is not capable of being constructed and operated in a successful manner within a reasonable amount of time. Compared to its potential profitability, the costs of constructing and operating the Snodgrass Slough Gas Field are sufficiently severe to render it impractical to proceed with its development. For these reasons, the Snodgrass Slough Gas Field alternative is economically infeasible.

The Snodgrass Slough Gas Field alternative would result in greater short-term construction-related impacts to the environment than the Proposed Project due to the increased length of the connecting pipeline route (5 miles) and longer construction period. These short-term construction impacts to biological and cultural resources can be mitigated to less than significant through avoidance of resources, restoration, or compensation for impacted resources.

Impacts to land use, agriculture, recreation, and public services and utilities would be greater due to the rural character of the site. Construction impacts to air quality and biological and cultural resources would also be slightly greater due to the increased length of the connecting pipeline route. These impacts can be mitigated to less-than-significant levels. Mitigation measures would include avoidance of resources, compensation for impacted resources, and dust control measures. Geology and soil impacts would be similar, as geologic conditions are similar to those of the Proposed Project. Visual resource impacts are similar to the Proposed Project with implementation of project mitigation measures. Impacts to population and housing under this alternative would be similar to the Proposed Project. This alternative would not result in significant environmental justice issues since it would not place a large number of facilities in the area and presumably land owners would receive royalties from the project. Noise and transportation/traffic would be less, due to avoidance of a more densely populated area.

The Snodgrass Slough Gas Field alternative would eliminate the significant unavoidable short-term construction noise impact as drilling for wells would not occur near sensitive receptors. Similar to the Proposed Project, the Snodgrass Slough Gas Field alternative would involve a significant Class I impact to hydrology and water quality (see Final EIR Section D.7) due to potential release of gas because of failure of the cap rock resulting in contamination of the groundwater aquifer, which could affect the local drinking water supply (Impact H-8).

Due to the remoteness of the site, Class I significant and unavoidable impacts to hazardous materials, public health and safety (Impact HAZ-2a) would be reduced to Class II with implementation of mitigation measures outlined in Final EIR Section D.6. This is also due to the area being remote and therefore the release of natural gas would result in substantially less risk than the Proposed Project.

Thornton Gas Field

The Thornton Gas Field is located in a predominantly agricultural area. The field is located less than a mile east of Franklin Boulevard and approximately 1.5 miles east of the I-5 freeway. The Cosumnes River Preserve is adjacent to the field to the north. The nearest population center is Thornton, which is located approximately 1 mile to the south of the site and has a population of 4,650 people (U.S. Census 2000[6]). The Thornton Gas Field is large with a working gas storage capacity of greater than 7.5 bcf. Development of this field would involve constructing facilities similar to those required for the Proposed Project, including injection/withdrawal wells, compressor station, and connecting pipeline(s) between the wells and compressor station, as well as an interconnecting pipeline from the gas field to SMUD's natural gas pipeline system. Connection to the SMUD system would require the construction of a 7-mile, 16-inch-diameter interconnect pipeline through primarily rural areas.

Findings/Rationale. The CPUC finds that specific economic, legal, social, technological, and other considerations, including those considerations set forth in the EIR, make this alternative economically infeasible, and less desirable than the Proposed Project, and therefore rejects this alternative. The Thornton Gas Field is large and would require approximately 18 bcf of cushion gas to develop. The revised development cost estimate for this alternative is $188.1 million with an annual cash flow after the first year of operation of -$18.3 million and a net income of $-7.89 million decreasing to -$93.96 million after 10 years of operation. The equity balance after 10 years of operation would be -$60.72 million. Given the relatively low return on investment, it is doubtful that the alternative would be financially feasible.

Because the Thornton Gas Field cannot produce a positive cash flow or net income, it is not capable of being constructed and operated in a successful manner within a reasonable

[6] U.S. Census (U.S. Census Bureau). 2000. *U.S. Census Bureau American Fact Finder*. Data Year 2000. Accessed online: http://factfinder.census.gov/home/saff/main.html?_lang=en

amount of time. Compared to its potential profitability, the costs of constructing and operating the Thornton Gas Field are sufficiently severe to render it impractical to proceed with its development. For these reasons, the Thornton Gas Field alternative is economically infeasible.

The Thornton Gas Field alternative would result in greater impacts to the environment than the Proposed Project due to the increased impacts related to the longer length of the connecting pipeline route (7 miles) and its location adjacent to the Cosumnes River Preserve. Greater impacts would occur to biological resources, hydrology and water quality, land use, agriculture, public services and utilities, and visual resources. Impacts to cultural resources would be slightly greater due to the increased length of connecting pipeline routes. Impacts to population and housing would be similar to those of the Proposed Project. This alternative would not result in significant environmental justice issues since it would not place a large number of facilities in the area and presumably land owners would receive royalties from the project. Impacts to air quality would be similar yet would include greater short-term construction impacts due to a longer construction period. Geology and soil impacts would be similar as geologic conditions are similar to those of the Proposed Project. Noise and transportation/traffic impacts would be less due to avoiding a more densely populated area.

The Thornton Gas Field alternative would eliminate the unmitigable short-term construction noise impact as drilling for wells would not occur near sensitive receptors. Similar to the Proposed Project, the Thornton Gas Field alternative would involve a significant Class I impact to hydrology and water quality due to potential gas migration causing contamination of the groundwater aquifer, which could affect the local drinking water supply.

Due to the remoteness of the site, HAZ-2a significant and unavoidable impacts would be reduced to less than significant with implementation of mitigation measures outlined in Final EIR Section D.6. This would also be due to the low number of people that would be affected should a gas leak occur.

VI.2 Project Design Alternatives

As identified by SNGS, LLC and analyzed in the EIR, three alternative pipeline routes between the proposed wellhead site and proposed compressor station were analyzed in detail in the EIR. Findings on each pipeline route alternative are presented below.

Alternative Wellhead Site to Compressor Station Pipeline Route 1

As described in Final EIR Section C.4.2.1, project facilities under the Alternative Pipeline Route 1 are the same as the Proposed Project, except for the route which the 16-inch-diameter underground natural gas pipeline would run from the wellhead site to the compressor station. Under this alternative, the gas pipeline from the wellhead to the compressor station would exit from the northwest corner of the wellhead site and head due east to the UPRR tracks. This alternative would parallel Junipero Street and cross an

active industrial-use yard. It would then parallel the UPRR tracks, north to Elder Creek Road. At this point, the alignment continues north to Lemon Hill Avenue before entering the compressor station. This route would be approximately 7,800 feet long, approximately 450 feet longer than the Proposed Project.

Findings/Rationale. The CPUC finds that specific economic, legal, social, technological, and other considerations, including those considerations set forth in the EIR, make this alternative less desirable than the Proposed Project. Generally, development of the Proposed Project using the Alternative Pipeline Route 1 design between the proposed Florin Gas Field wellhead site to the proposed compressor station would result in slightly greater impacts to the environment due to a slightly greater construction impact area. Similar to the Proposed Project, Alternative Pipeline Route 1 would involve significant and unavoidable impacts, including the following:

(1) Hazardous materials, public health and safety impacts because of the potential for hazards, such as release of natural gas and release of toxic substances.

(2) Hydrology and water quality impacts due to potential release of gas because failure of the cap rock resulting in contamination of the aquifer, which could affect the local drinking water supply.

(3) Short-term construction noise due to the project being located near sensitive receptors would remain significant.

CPUC finds that due to a greater construction impact area, impacts to cultural resources, hydrology and water quality, noise, and public services and utilities would be slightly greater. Impacts to air quality and visual resources would be similar yet would include greater short-term construction-related impacts due to a longer construction period. Impacts to geology and soils, land use, agriculture, recreation, and population and housing would be similar due to the project having the same general impact area as the Proposed Project. Impacts to transportation and traffic would be less, due to the pipeline route being located away from Power Inn Road. Impacts to biological resources would be slightly less, as a portion of the pipeline crosses an industrial yard.

Alternative Wellhead Site to Compressor Station Pipeline Route 2

As described in Final EIR Section C.4.2.2, project facilities under the Alternative Pipeline Route 2 are the same as the Proposed Florin Gas Field Storage Project, except for the route that the 16-inch-diameter underground natural gas pipeline would run from the wellhead site to the compressor station. Under this alternative, the gas pipeline would exit from the northwest corner of the wellhead site and run approximately 600 feet north within the utility alignment to Berry Avenue, and then parallel the UPRR tracks north to Elder Creek Road. At this point, the alignment continues north to Lemon Hill Avenue before entering the compressor station. This route would be approximately 7,700 feet long, approximately 350 feet longer than the Proposed Project.

Findings/Rationale. The CPUC finds that specific economic, legal, social, technological, and other considerations, including those considerations set forth in the EIR, make this alternative less desirable than the Proposed Project. Generally, development of the Proposed Project using the Alternative Pipeline Route 2 design between the proposed Florin Gas Field wellhead site to the proposed compressor station would result in slightly greater impacts to the environment due to a slightly greater construction impact area. Similar to the Proposed Project, Alternative Pipeline Route 2 would involve significant Class I impacts, including the following:

(1) Hazardous materials, public health and safety impacts because of the potential for hazards, such as release of natural gas resulting in fire, explosion, and release of toxic substances.

(2) Hydrology and water quality impacts due to potential release of gas because failure of the cap rock resulting in contamination of the aquifer, which could affect the local drinking water supply.

(3) Short-term construction noise due to the project being located near sensitive receptors would remain significant.

Due to a greater construction impact area, impacts to cultural resources, hydrology and water quality, noise, and public services and utilities would be slightly greater. Impacts to air quality and visual resources would be similar yet would include greater short-term construction impacts due to a longer pipeline length and construction period. Impacts to biological resources, geology and soils, land use, agriculture, recreation, population and housing, and transportation and traffic would be similar, due to this alternative having a similar general impact area as the Proposed Project.

Alternative Wellhead Site to Compressor Station Pipeline Route 3

As described in Final EIR Section C.4.2.3, project facilities under the Alternative Pipeline Route 3 are the same as the Proposed Florin Gas Field Storage Project, except for the route that the 16-inch-diameter underground natural gas pipeline would run from the wellhead site to the compressor station. Under this alternative, the gas pipeline from the wellhead to the compressor station would exit from the northwest corner of the wellhead site and run north approximately 1,650 feet within an existing utility alignment, and then approximately 650 feet north along Power Inn Road to Elder Creek Road. From that intersection, the pipeline would be installed within Elder Creek Road, for approximately 1,800 feet, to the intersection with the UPRR tracks. At this point, the alignment continues north to Lemon Hill Avenue before entering the compressor station. This route would be approximately 7,100 feet long total, approximately 250 feet shorter in length than the Proposed Project.

Findings/Rationale. The CPUC finds that specific economic, legal, social, technological, and other considerations, including those considerations set forth in the EIR, make this alternative less desirable than the Proposed Project. Generally, development of the Proposed Project using the Alternative Pipeline Route 3 design between the proposed

Florin Gas Field wellhead site to the proposed compressor station would result in slightly less impacts to the environment due to a slightly smaller construction impact area. However, this alternative would not mitigate or avoid the Proposed Project's significant effects on the environment. Similar to the Proposed Project, Alternative Pipeline Route 3 would involve significant Class I impacts, including the following:

(1) Hazardous materials, public health and safety because of the potential for hazards, such as release of natural gas resulting in fire, explosion, and release of toxic substances.

(2) Hydrology and water quality due to potential release of gas because failure of the cap rock resulting in contamination of the aquifer, which could affect the local drinking water supply.

(3) Short-term construction noise due to the project being located near sensitive receptors would remain significant.

Impacts to geology and soils, land use, agriculture, and recreation, population and housing, and transportation/traffic would be similar due to this alternative having a similar general impact area as the Proposed Project. Impacts to air quality and visual resources would be similar but would involve less short-term impacts due to a slightly shorter construction period. Due to a shorter pipeline length and construction period, impacts to biological and cultural resources, hydrology and water quality, noise, and public services and utilities would be slightly less.

VI.3 No Project Alternative

As described in Final EIR Section C.6, under the No Project Alternative, none of the facilities including the natural gas reservoir, wellhead site, compressor station, and pipeline segments one and two associated with the Proposed Project or alternatives evaluated would be developed.

Findings/Rationale. As a result of the No Project Alternative, the CPUC finds that none of the short-term disruption impacts or long-term operation impacts would occur, including the significant and unavoidable impacts for: (1) the potential release of natural gas resulting in fire, explosion, and release of toxic substances (Final EIR Section D.6); (2) release of gas due to failure of the cap rock, resulting in contamination of the aquifer (Final EIR Section D.7); and (3) exceedance of the City of Sacramento's noise standard due to well drilling at the wellhead site (Final EIR Section D.9).

With implementation of the No Project Alternative, in the event of disruption of the PG&E natural gas pipelines 400/401, an adverse condition would occur as natural gas is used to generate approximately 30% of the electricity in the Sacramento area. SMUD has identified a need for at least a 30-day backup supply of natural gas in the event of an outage of the PG&E natural gas distribution system. Under the No Project Alternative, the SNGS Facility would not be built and the primary objective of the Proposed Project

to increase storage in the event of an interruption of the importation system would not be met, thereby requiring SMUD and PG&E to implement cutbacks on non-essential uses of energy, and depending on the length of interruption, would run out of natural gas at some locations.

VII. Findings Regarding Other CEQA Considerations

VII.1 Growth-Inducing Impacts

A project will generate significant growth-inducing impacts if it generates growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. In addition, significant impacts could also occur if a project provides infrastructure or service capacity to accommodate future growth beyond that permitted by local or regional plans and policies.

Findings/Rationale. 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 CPUC. In addition, 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 (Final EIR Section F.1.2).

VII.2 Significant Irreversible Environmental Changes

Irreversible environmental changes caused by a project include uses of nonrenewable resources during construction and operation, long-term or permanent access to previously inaccessible areas, and irreversible damages that may result from project-related accidents.

Findings/Rationale. 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 (Final EIR Section F.2).

The construction of the compressor station and installation of pipeline segments one and two would disturb wetlands and waters of the U.S., as well as wetlands under the

jurisdiction of the CDFG and RWQCB. Impacts to biological resources from these permanent impacts are discussed in Final EIR Section D.3, Biological Resources. With implementation of mitigation presented in Final EIR Section D.3, permanent impacts to these resources would be less than significant.

While unlikely to occur, the migration of stored gas to the overlying groundwater aquifer and/or to the ground surface is considered significant. Public health and safety impacts resulting from gas migration are presented in Final EIR Section D.6, Hazardous Materials, Public Health and Safety. Despite implementation of mitigation presented in Section D.6, irreversible damage resulting from project-related accidents involving gas migration would remain significant and unavoidable. Similarly, the likelihood of the release of gas due to the failure of the cap rock is low; however, because of the duration of the impact and because the effectiveness of mitigation presented in Section D.7, Hydrology and Water Quality, is not known, irreversible damage resulting from project-related accidents involving the release of gas is considered significant and unavoidable.

VII.3 Responses to Comments on the Draft EIR and Revisions to the Final EIR

The Final EIR (June 2010) includes comments received on the Draft EIR (April 2009) and responses to those comments. The Addendum to the Final EIR includes minor clarification and information regarding the existing conditions, impacts, and mitigation for the Proposed Project. These clarifications and information do not result in the identification of new significant impacts. In addition, the Addendum to the Final EIR included revisions to responses to comments received during the extended Draft EIR comment period (April 8, 2009, through June 22, 2009).

Findings/Rationale. The addition of text and information merely clarifies and amplifies the existing conditions and impacts discussions and mitigation measures presented in the EIR and does not trigger recirculation per CEQA Guidelines Section 15088.5(f)(2).

VIII. Adoption of a Monitoring and Reporting Program for the CEQA Mitigation Measures

PRC Section 21081.6 requires the Commission to adopt a monitoring or reporting program regarding the changes in the project and mitigation measures imposed to lessen or avoid significant effects on the environment. The MMCRP is adopted because it fulfills the CEQA mitigation monitoring requirements:

- The MMCRP is designed to ensure compliance with the changes in the project and mitigation measures imposed on the project during project implementation.
- Measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures.

The SNGS Project's MMCRP is included as Section G of the Final EIR.

IX. Mitigation Monitoring and Reporting

This EIR includes an MMCRP for the mitigation measures proposed for the project. An MMCRP table for the Proposed Project and its alternatives is provided at the end of each issue area in Section D (Sections D.2 through D.13), which lists each mitigation measure and outlines procedures for successful implementation. Section G provides the recommended framework for effective implementation of the MMCRP by the CEQA lead agency, the CPUC, and describes the roles of responsible parties in carrying out and enforcing adopted mitigation measures.

IX.1 Authority for the Mitigation Monitoring, Compliance, and Reporting Program

The California Public Utilities Code confers authority upon the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval be implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Section 21081.6 of the PRC. Section 21081.6 requires a public agency to adopt an MMCRP when it approves a project that is subject to preparation of an EIR and where the EIR for the project identifies significant adverse environmental effects. CEQA Guidelines Section 15097 (14 CCR 15000 et seq.) was added in 1999 to further clarify agency requirements for mitigation monitoring or reporting.

The purpose of an MMCRP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMCRP as a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance, and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under PRC Section 21081.6 when it takes action on SNGS, LLC's application for a CPCN. If the CPUC approves the application, it will also adopt an MMCRP that includes the mitigation measures ultimately made a condition of approval by the CPUC.

IX.2 Organization of the Final Mitigation Monitoring Program

If the project or an alternative to the project is approved, the MMCRP should serve as a self-contained general reference for the mitigation monitoring program adopted by the CPUC for the SNGS Project. To accomplish this, the final mitigation monitoring program (final plan) should contain eleven elements (indicated below). If and when a project has been approved by the CPUC, they will compile the final plan from the mitigation

monitoring program in the Final EIR, as adopted. The elements of the mitigation monitoring program are as follows:

MMCRP Introduction:

- Authority and purpose of the program
- Program adoption process
- Organization of the MMCRP.

Roles and Responsibilities:

- Monitoring responsibility
- Enforcement responsibility
- Mitigation compliance responsibility
- Dispute resolution.

General Monitoring Procedures:

- Environmental monitors
- Construction personnel
- General reporting program
- Public access to records.

IX.2.1 MMCRP Introduction

Project Description

In addition to, a description of the authority and purpose of the program, the program adoption process, and an overview of the MMCRP organization, this section of the Final Mitigation Monitoring Implementation Plan will contain a concise overview and description of the approved project and will clearly outline its physical location and project timetable, including construction segments. This section will also specify the "master" reference(s), which the monitors and the applicant will use in carrying out the program (e.g., the Final EIR, but also more detailed working maps and plans). The APMs to which SNGS, LLC has committed to reduce potential impacts will also be listed in this section.

This section will include the list of agencies with jurisdiction over the project (from Final EIR Table A-1) and a description of where their respective jurisdictions exist. For example, for a given construction segment, each jurisdictional agency's contact person's information (including name, address, telephone and fax numbers) should be provided. This section will also provide a guide to the organization of the document.

Mitigation Monitoring Programs

The final plan will incorporate the organization and display of the individual issue area mitigation monitoring programs presented in the Final EIR, as well as all APMs applicable to the project. Each mitigation measure will be numbered and described briefly. The Final EIR should be consulted for an in-depth discussion of each mitigation measure. The final plan will also include:

- The responsible parties, schedule, and reporting requirements for carrying out the monitoring activity for each mitigation measure
- Effectiveness criteria for evaluating the implementation of the mitigation measure.

IX.2.2 Roles and Responsibilities

Monitoring Responsibility

As the lead agency under CEQA, the CPUC is required to monitor the SNGS Project to ensure that the required mitigation measures and APMs are implemented. The CPUC will be responsible for ensuring full compliance with the provisions of the MMCRP and has primary responsibility for its implementation. The purpose of the MMCRP is to document that the mitigation measures required by the CPUC are implemented, and that mitigated environmental impacts are reduced to the level identified in the certified Final EIR.

The CPUC may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as deemed necessary, and some monitoring responsibilities may be assumed by responsible agencies (such as affected jurisdictions and cities). The number of construction monitors assigned to the project will depend on the number of concurrent construction activities and their locations. However, the CPUC will ensure that each person delegated monitoring duties or responsibilities is qualified to monitor compliance.

Any mitigation measure study or plan that requires approval from the CPUC must allow for adequate review time, as stipulated in the mitigation monitoring tables at the end of each impact area section (Final EIR Sections D.2–D.13). Other agencies and jurisdictions may require longer review periods. It is the responsibility of the environmental monitors assigned to the project to ensure that appropriate agency reviews and approvals are obtained.

The CPUC and its environmental monitors will also ensure that any variance process or deviation from the procedures identified under the MMRCP is consistent with CEQA requirements; no project variance will be approved by the CPUC if it creates new significant impacts. As defined in this section, a variance should be strictly limited to minor project changes that will not trigger other permit requirements that do not increase the severity of an impact or create a new impact, and that clearly and strictly comply with the intent of the mitigation measure. A Proposed Project change that has the potential for creating significant environmental effects will be evaluated to determine whether

supplemental CEQA review is required. Any proposed deviation from the approved project, adopted mitigation measures, and APMs, and correction of such deviation, shall be reported immediately to the CPUC and the environmental monitors assigned to the project for their review and approval. In some cases, a variance may also require approval by a CEQA-responsible agency.

Enforcement Responsibility

The CPUC is responsible for enforcing the procedures adopted for monitoring through the environmental monitors assigned to the project. The environmental monitors shall note problems in the field, notify appropriate agencies or individuals about issues, and report compliance status to the CPUC project manager.

The CPUC has the authority to halt any construction, operation, or maintenance activity associated with the Proposed Project if the activity is determined to be a deviation from the approved project, adopted mitigation measures, or APMs. The CPUC may delegate this authority to third-party environmental monitors assigned to the project.

Mitigation Compliance Responsibility

The applicant, SNGS, LLC, is responsible for successfully implementing all the adopted mitigation measures in the MMCRP. The MMCRP will contain criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include requirements such as obtaining permits or avoiding a specific impact entirely. Other mitigation measures include success criteria that are listed in the mitigation monitoring tables at the end of each impact area section in Final EIR Section D. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

The applicant shall inform the CPUC and its monitors in writing of any mitigation measures that are not or cannot be successfully implemented. In coordination with its monitors, the CPUC will assess whether alternative mitigation is appropriate and specify to SNGS, LLC when subsequent actions are necessary to protect resources consistent with the findings of the EIR.

Dispute Resolution

It is expected that the final MMCRP will reduce or eliminate many potential disputes. However, even with the best preparation, disputes may occur. In such event, the following procedures will be followed:

- **Step 1.** Disputes and complaints (including those of the public) should be directed first to the CPUC's designated project manager for resolution. The project manager will attempt to resolve the dispute.

- **Step 2.** Should this informal process fail, the CPUC project manager may initiate enforcement or compliance action to address deviations from the Proposed Project or adopted mitigation monitoring program.
- **Step 3.** If a dispute or complaint regarding the implementation or evaluation of the program or the mitigation measures cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC's executive director. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served to other affected participants. Within 10 days of receipt, the executive director or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The executive director shall issue an executive resolution describing his/her decision and serve it on the filer and other affected participants.
- **Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the resolution, such party/parties may appeal it to the CPUC via a procedure to be specified by the CPUC.

Parties may also seek review by the Commission through existing procedures specified in the Commission's Rules of Practice and Procedure for formal and expedited dispute resolution, although a good-faith effort should first be made to use the foregoing procedures.

IX.2.3 General Monitoring Procedures

Environmental Monitors

Many of the monitoring procedures will be conducted during the construction phase of the project. The CPUC and the environmental monitors are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with SNGS, LLC. To oversee the monitoring procedures and to ensure success, the environmental monitors assigned to the project must be on site during construction activities that have the greatest potential to create a significant environmental impact or other impact for which mitigation is required. The environmental monitors are responsible for ensuring that all procedures specified in the monitoring program are followed.

Construction Personnel

A key component of a successful mitigation monitoring program will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures included in the final plan, will be taken:

- Procedures to be followed by construction companies hired to do the work will be written into contracts between SNGS, LLC and any construction contractors.

Procedures to be followed by construction crews will be written into a separate agreement that all construction personnel will be asked to sign, denoting agreement.

- One or more preconstruction meetings will be held to inform and train construction personnel about the requirements of the MMCRP (as detailed in the Final Mitigation Monitoring Implementation Plan).
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all mitigation measures requiring their attention.

General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the environmental monitors assigned to the relevant construction segment. A monitoring record form will be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress traced by the environmental monitors. A checklist will be developed and maintained by the environmental monitors to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitors will note any issues that may occur and take appropriate measures to bring a situation back into compliance. The applicant shall provide the CPUC with written weekly reports of the project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the project. Weekly reports shall be required as long as mitigation measures are applicable.

Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CPUC on request. The CPUC and the applicant will develop a filing and tracking system. For additional information on mitigation monitoring and reporting for the SNGS Project, the Energy Division of the CPUC will maintain an Internet website, accessible at http://www.cpuc.ca.gov/environment/info/dudek/sngs/SNGS_Home.htm. In order to facilitate the public's awareness, the CPUC will make periodic reports available on the website.

IX.3 Condition Effectiveness Review

In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a mitigation monitoring program to ensure compliance during project implementation (PRC Section 21081.6):

- The CPUC may conduct a comprehensive review of conditions that are not effectively mitigating impacts at any time it deems appropriate, including as a result of the dispute resolution procedure outlined in Final EIR Section G.6 and in Section IX.2.2 above.

- If in either review, the Commission determines that any conditions are not adequately mitigating significant environmental impacts caused by the project, then the Commission may impose additional reasonable conditions to effectively mitigate these impacts.

These reviews will be conducted in a manner consistent with the CPUC's rules and practices.

X. Mitigation Monitoring Program Table

Final EIR Table G-1, Mitigation Monitoring Program, along with the full text of the mitigation measures themselves, form the Proposed Project's MMCRP. The MMCRP is hereby adopted by the CPUC. The CPUC will prepare the Mitigation Monitoring Implementation Plan prior to the start of project-related activities in order to implement the adopted MMCRP.