Final Environmental Impact Report Sacramento Natural Gas Storage Project Volume 1, Responses to Comments, Part 2, Responses CPCN Application No. A.07-04-013; SCH No. 2007112089



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PREPARED FOR:

California Public Utilities Commission 505 Van Ness Avenue, Room 2005 San Francisco, CA 94102

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VOLUME 1 RESPONSES TO COMMENTS PART 2: RESPONSES

A. Public Agencies and Officials

Central Valley Flood Protection Board (James Herota) Dated April 8, 2009

- A1-1 The comment is noted. Based on the California Code of Regulations, Title 23, Table 8.1, Morrison Creek is within the Central Valley Flood Protection Board's jurisdiction.
- A1-2 Table A-1 of the EIR states that the project will require an Encroachment Permit from the State Reclamation Board (as identified in Document No. A1-1, now named the Central Valley Flood Protection Board). The Central Valley Flood Protection Board grants permits for various projects within its jurisdiction. Morrison Creek, which is crossed by the proposed pipeline route, is a regulated stream according to the California Code of Regulations, Title 23, Table 8.1. Specific regulations are presented in California Code of Regulations, Title 23, Waters, Article 8, Section 112, Streams Regulated and Nonpermissible Work Periods. Under these regulations, approval from the Central Valley Flood Protection Board is required for proposed encroachments within the floodways under its jurisdiction.

In response to this comment, Table A-1 in Section A.3.2 has been updated in the Final EIR to reflect the revised name of the State Reclamation Board to the Central Valley Flood Protection Board. This revision to the EIR does not raise an important new issue about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

Sacramento-Yolo Mosquito and Vector Control District (Marty Scholl) Dated May 6, 2009

A2-1 The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

Sacramento Area Sewer District (Salam A. Khan, PE) Dated May 14, 2009

- A3-1 The comment is noted. For clarification purposes, and as described in the EIR, the Proposed Project's components would only be located in the City of Sacramento and the County of Sacramento. No project components would be located in the City of West Sacramento or Yolo County.
- A3-2 The comment that facilities are within the boundaries of the Sacramento Area Sewer District, Sacramento Regional County Sanitation District, and the Urban Services Boundaries is noted. The EIR provides mitigation in Section D.11, Public Services and Utilities, that requires Sacramento Natural Gas Storage, LLC (SNGS, LLC) to coordinate with affected jurisdictions during project design.
- A3-3 The comment is noted. Mitigation Measure U-1d in the EIR requires SNGS, LLC to coordinate with appropriate jurisdictions and through written documentation to the California Public Utilities Commission (CPUC) to demonstrate that construction plans are designed to protect existing utilities, that the project complies with design standards, and that the project meets all necessary local requirements.
- A3-4 The comment is noted that with proposed mitigation for public services and utilities, the subject project will not significantly impact Sacramento Area Sewer District facilities and that impacts to wastewater facilities would be less than significant.

Sacramento Metropolitan Air Quality Management District (Joseph James Hurley) Dated May 21, 2009

A4-1 The first paragraph of the comment is noted. It acknowledges information and conclusions in the EIR and further response is not necessary.

Table D.2-7 of the EIR summarizes the Applicant's Proposed Measures (APMs) to reduce air quality impacts associated with project construction, including APM 3(d) (the commenter incorrectly refers to APM 4(d)). The EIR recognized that the mitigation fee in the APM is outdated. Accordingly, Mitigation Measure A-2 reflects the current fee. APM 3(d) does not need to be revised because it was the applicant's proposal at the time the application was submitted to the CPUC. It was incorporated in the mitigation monitoring and reporting program (see Impact A-2, APM 3(d) in Table G-1 of the EIR). In response to this comment, Mitigation Measure A-2 in Section D.2.3.3; Table ES-1 in the Executive Summary; and Table G-1 in Section G, Mitigation Monitoring and Reporting, of the Final EIR have been revised to reflect that the mitigation fee is an estimate, based on the current calculation method and fees, and that the actual fee, to be paid prior to issuance of building permits, will be based on the method and fees in effect at that time. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

A4-2 Section 15064.7 of the CEQA Guidelines provides that a lead agency may establish thresholds of significance at its discretion and that a threshold may be quantitative, qualitative, or a performance level. The comment implies that an individual project's impact on global climate change should be assessed quantitatively. Global climate change, by its very nature, results from emissions from the global inventory of greenhouse gas emissions. There is no recognized methodology to quantify an individual project's impact on the global climate. The cumulative nature of global climate change is recognized in the California Air Pollution Control Officers' guidance document titled, CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, as well as the proposed revisions to the CEQA Guidelines. The test, therefore, is whether a project's impact would be cumulatively considerable. Section 15064(h)(3) of the CEQA Guidelines states, "a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements of a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially less the cumulative problem ..." The approach utilized in the EIR relies on the project's consistency with the adopted Climate Change Scoping Plan and early action measures.

It should be noted that this approach has not resulted in the avoidance of mitigation. The CPUC is committed to reducing greenhouse gas emissions from projects subject to its approval. Accordingly, the EIR includes Mitigation Measures C-1 (participation in the Environmental Protection Agency (EPA) Natural Gas STAR program) and C-2 (a minimum of 50% of the electricity to the compressor station from renewable energy sources). In addition, some of the air quality mitigation measures would also reduce greenhouse gas emissions from motor vehicles and construction equipment. Furthermore, the proposed use of electric-powered compressors would reduce the Proposed Project's overall operational greenhouse gas emissions by approximately 35% relative to "business as usual" using compressors powered by gas-fired engines prior to mitigation.

The commenter requests that measures in the Climate Change Scoping Plan for the natural gas sector be analyzed further and their feasibility as applicable mitigation measures for the Proposed Project be discussed. The Climate Change Scoping Plan does not include specific measures for the natural gas sector, which will be developed by the California Air Resources Board (CARB) at a later date. The discussion of measures that would apply to oil and gas recovery operations and natural gas transmission states, "these measures would include improved leak detection, process modifications, equipment retrofits, installation of new equipment, and best management practices." However, no details of such measures are provided in the Climate Change Scoping Plan. To date, CARB has not begun development of regulations for this sector. Further information regarding the status of regulations for the natural gas transmission and distribution sector may be found at http://www.arb.ca.gov/cc/gas-trans/gas-trans.htm. According to this website, this measure is scheduled to be adopted in late 2010.

- A4-3 The comment is noted. The need to comply with Sacramento Metropolitan Air Quality Management District (SMAQMD) rules and regulations is discussed in Section D.2 of the EIR.
- A4-4 This comment consists of an attachment and does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required. It should be noted that the SMAQMD-recommended mitigation measures outlined in this attachment have been incorporated into the mitigation measures for the project. The applicable rules have been described in Section D.2 of the EIR.

Department of the Army, U.S. Army Engineer District, Sacramento Corps of Engineers (Kathleen Dadey) Dated May 26, 2009

- A5-1 The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- A5-2 The comment is noted. Mitigation Measure B-3a of the EIR requires that SNGS, LLC verify wetland areas that were not verified by the Sycamore Environmental Consultants (2008) study. Also, this mitigation measure requires SNGS, LLC to obtain U.S. Army Corps of Engineers (ACOE) concurrence on the areas of ACOE jurisdiction. Mitigation Measure B-6 requires SNGS, LLC to coordinate with ACOE 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.
- A5-3 The comment is noted. This project implements horizontal directional drilling (HDD) in areas of stream crossings (Morrison Creek), which is proposed as part of the project construction methods to avoid discharge of dredged or fill material into the waters of the United Sates.
- A5-4 The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

California Department of Transportation, District 3 (Alyssa Begley) Dated June 18, 2009

A6-1 This comment is noted. The only project feature that would cross a transportation corridor is pipeline segment one, which would be placed beneath the Union Pacific Railroad (UPRR) just north of Elder Creek Road. HDD technology would be used to install the pipeline beneath the railroad, which would avoid disruption to UPRR operations.

Note that state freeway corridors, including Highway 99 and Interstate 5, are located approximately 2 and over 5 miles, respectively, from the closest project component. Therefore, project components would not have the potential to cross these two corridors.

- A6-2 Please refer to response A6-1. Encroachment into a Caltrans right-of-way is not required for implementation of this project. Highway 99 is located approximately 2 miles west and Interstate 5 is located over 5 miles west of the Proposed Project improvements.
- A6-3 Please refer to responses A6-1 and A6-2. The EIR, in Section D.12, Transportation and Traffic, includes Mitigation Measure T-2 that requires scheduling of delivery and construction-related traffic to avoid travel during peak periods of traffic on surrounding roadways.
- A6-4 New gas pipelines are not planned for construction in or near state highways. Asbuilt plans will be provided to Caltrans for informational purposes.
- A6-5 Please refer to response A6-3. Pipeline segment one would be placed beneath the UPRR just north of Elder Creek Road. HDD technology would be used to install pipeline beneath the railroad, which would avoid disruption to the UPRR right-of-way. A permit from UPRR may be required. Please refer to response B5-99.
- A6-6 Please refer to responses A6-1 and A6-2. As required by the California Environmental Quality Act (CEQA) Section 21081.6 of the Public Resources Code, the California Public Utilities Commission (CPUC) has prepared and will adopt a Mitigation Monitoring, Compliance, and Reporting Plan (MMCRP). A draft MMCRP is included as Section G of the EIR. The MMCRP is designed to ensure compliance during implementation of the approved project. The MMCRP includes Applicant Proposed Measures (APMs) and mitigation measures that are

proposed to mitigate impacts to drainage in the project area to less-thansignificant levels.

- A6-7 Please refer to responses A6-1 and A6-2. Due to the distance of the project components from surrounding state freeway corridors, this project would not increase discharge in the state drainage system.
- A6-8 The EIR, Section B.7, SNGS Project Protocols, states that the project Proponent's Environmental Assessment (PEA) details the best management practices (BMPs) that would be followed during all project-related activities. Table B-5 of the EIR provides a complete list of APMs that SNGS, LLC has incorporated into the project, which includes BMPs to mitigate drainage impacts of the proposed development. In addition, as required by CEQA Section 21081.6 of the Public Resources Code, the CPUC has prepared and will adopt an MMCRP for adopted or required changes made as a condition of approval in order to mitigate or avoid identified significant project-related environmental effects, including those related to drainage. The APMs are also incorporated in the MMCRP to ensure these measures are implemented and monitored.
- A6-9 This comment is noted. Please refer to response A6-3.

Department of Conservation, Division of Oil, Gas, and Geothermal Resources (Robert Habel) Dated June 19, 2009

- A7-1 This comment, describing the Department of Conservation's Division of Oil, Gas, and Geothermal Resources' (DOGGR's) responsibilities related to oil and gas activities, is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- A7-2 This comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- A7-3 This comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- A7-4 The alternatives selected for analysis were based on the information initially provided by the applicant with additional information from the DOGGR database and from readily available land use and other data. Since these sites were abandoned gas fields, it was assumed for the purposes of the alternatives analysis that the sites would be potentially suitable for gas storage. The commenter is correct that additional detailed geologic studies would be necessary to determine precise gas storage characteristics of the alternative. Please also refer to response A11-20 regarding alternatives considered in the EIR.
- A7-5 Thank you for this clarification. The term "wellhead site," as it is used in the EIR, is meant as the entire facility site supporting well drilling and gas storage operations. In response to this comment, the project description has been clarified to ensure that this distinction is made to reduce any confusion. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-6 The Final EIR has been revised to ensure that there is a clear distinction between HDD and the drilling of the well. The commenter is correct that frac-outs are associated with HDD and not drilling of the gas wells. Although both mud will be composed of non-toxic materials, there is a potential that the mud could be

contaminated with solvents, contaminants, and other materials associated with drilling. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- A7-7 In response to this comment, additional information has been added to Section D.7, Hydrology and Water Quality, of the Final EIR to address the water tanks and DOGGR's requirements relating to these tanks. These additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-8 In response to this comment, Mitigation Measure HAZ-2a*i* of the Final EIR has been modified to more clearly describe the role of DOGGR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-9 In response to this comment, Mitigation Measure HAZ-2a*ii* of the Final EIR has been modified to more clearly describe the role of DOGGR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-10 In response to this comment, Mitigation Measure HAZ-2b*ii* of the Final EIR has been modified to more clearly describe the role of DOGGR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-11 In response to this comment, Mitigation Measure H-8a of the Final EIR has been modified to include the spill contingency plan or an equivalent Spill Prevention, Control, and Countermeasure (SPCC). This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-12 In response to this comment, Mitigation Measure H-8b of the Final EIR has been modified to more closely describe the role of DOGGR. This change to the EIR does not raise important new issues about significant effects on the environment.

Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- A7-13 In response to this comment, Table A-1 of the Final EIR has been modified. No mud pits are proposed for the project. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-14 In response to this comment, the discussion of DOGGR gas field mapping in Section B of the Final EIR has been clarified to describe the basis of this mapping. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-15 In response to this comment, Figure B-2 of the Final EIR has been modified to show the location of the eight plugged wells. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-16 In response to this comment, Figure B-4 of the Final EIR has been modified to indicate the top of the reservoir is at 3,800 feet. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-17 In response to this comment, additional description of the well drilling activities has been provided in Section B.4.2.2 of the Final EIR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-18 This information was intended to discuss vehicles that would be transporting materials or personnel. The drill rig itself is anticipated to remain on site. Emissions and other impacts of the drill rig, such as air quality and noise impacts, were addressed in the EIR.
- A7-19 In response to this comment, Section B of the Final EIR was revised to indicate that the gas wells will be abandoned, including the plugging of the wells. This change to the EIR does not raise important new issues about significant effects on

the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- A7-20 Because the analyses of alternative storage areas are preliminary and would require additional detailed studies to determine the full feasibility of the alternatives, we see little value in identifying locations of plugged and operating wells and have not provided those locations.
- A7-21 In response to this comment, Section D.5 the Final EIR has been revised to indicate the cap rock thickness is 150 to 300 feet. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-22 No active faults are within the project area. There is a matter of debate whether anomalies within the seismic data are faults or other structures. Section D.5 of the Final EIR has been modified to reflect this comment. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-23 In response to this comment, Section D.5 of the Final EIR has been revised to reflect that the Mineral Resource Zone classification is due to the presence of Portland Cement Concrete (PCC)-grade construction aggregate. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-24 In response to this comment, Section D.5 of the Final EIR has been modified to reflect these updated references. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-25 In response to this comment, Section D.5 of the Final EIR has been modified to reflect the expanded role of DOGGR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-26 The current documents governing earthquake resistant design for the proposed SNGS structures are California Title 24 2007 edition of the California Building

Code (CBC), and the *California Geological Survey Special Publication 117A*, *Guidelines for Evaluating and Mitigating Seismic Hazards in California, 2008*.

The CBC is updated every three years, so it is possible that by the time the project is underway, the 2010 edition of CBC will be the governing building code. Enforcement of these requirements is the responsibility if the local building and safety officials.

CGS publication 117A discusses the relationship of its seismic mitigation guidelines to the CEQA process and states:

Nothing in these Guidelines is intended to negate, supersede, or duplicate any requirements of the California Environmental Quality Act (CEQA), or other state laws and regulations. At the discretion of the lead agency, some or all of the investigations required by the Seismic Hazards Mapping Act may occur either before concurrent with, or after the CEQA process or other processes that require site investigations.

SNGS may satisfy the building and safety requirements for seismic engineering of its proposed structures by employing licensed engineering and geologic experts who may evaluate and recommend design earthquake ground motion levels and appropriate engineering measures to withstand these design vibrations by several methods.

If these experts choose to utilize a probabilistic seismic hazard analysis (PSHA), per CBC 2007, DOGR is correct in stating that the levels should be recalculated utilizing 2/3 of the maximum site-specific earthquake (MCE), which is a probability of 2% of occurrence within a 50 year project life (2475 year return period). The ground motion from such an event is to be based on the Next Generation Attenuation Relationships (NGA) from seismic sources identified by the US Geological Survey: http://earthquake.usgs.gov/research/hazmaps/.

Using this method, approximate ground motion parameters for the site are calculated and summarized as follows for a site location of 38.57 degrees north and 121.41 degrees west:

Conterminous 48 States 2005 ASCE 7 Standard Latitude = 38.5722 Longitude = -121.41277

Spectral Response Accelerations Ss and S1

Ss and S1 = Mapped Spectral Acceleration Values

Site Class B - Fa = 1.0, Fv = 1.0

Data are based on a 0.01 deg grid spacing

Period Sa

(sec) (g)

0.2 0.533 (Ss, Site Class B)

- 1.0 0.230 (S1, Site Class B)
- A7-27 In response to this comment, Section D.6 of the Final EIR has been modified to reflect DOGGR's responsibilities. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-28 In response to this comment, Section D.6 of the Final EIR has been modified to reference CCR Title 14, Division 2, Chapter 4, Subchapter 2, entitled Environmental Protection. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-29 There is a potential that drilling may occur through contaminated aquifers so there is a potential that the mud could become contaminated. Please refer to response A8-4.
- A7-30 Thank you for this information; your comment is noted.
- A7-31 In response to this comment, Section D.6 of the Final EIR has been modified to reflect this comment. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-32 In response to this comment, Mitigation Measures HAZ-2a*i* and HAZ-2a*ii* of the Final EIR have been modified to more closely identify DOGGR's role. This change to the EIR does not raise important new issues about significant effects on

the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- A7-33 The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- A7-34 In response to this comment, Section D.7 of the Final EIR has been modified to include the acronym HDD in the analysis. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-35 Monitoring will be conducted and reported as part of the mitigation monitoring and reporting plan.
- A7-36 In response to this comment, the reference to DOGGR's authority in relation to APM 4b has been deleted in Table G-1 of the Final EIR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A7-37 The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- A7-38 The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- A7-39 The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

U.S. Army (Scott Armstrong) Dated June 22, 2009

- A8-1 The comment in noted. In response to this comment, Section D.6.1.2, Compressor Station, of the Final EIR has been revised to clarify that the Army is responsible only for contamination associated with past activities occurring before the transfer of Depot Park to the City of Sacramento. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A8-2 In response to this comment, Section D.6 of the Final EIR has been modified to address volatile organic compound (VOC) contamination with drilling mud. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A8-3 In response to this comment, Section D.7 of the Final EIR has been modified to include a discussion of the VOC-contaminated groundwater. This also includes a discussion of the monitoring wells and any impacts to those wells associated with the Proposed Project facilities. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A8-4 Section D.7.3.3 of the Final EIR has been modified to discuss shallow groundwater contamination and the potential impacts associated with the drilling through these aquifers. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A8-5 Land use controls are further described in Section D.8 of the EIR.

California Regional Water Quality Control Board Central Valley Region (William Brattain, PE) Dated June 22, 2009

- A9-1 This comment summarizes the conclusions of Section D.7 of the EIR. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- A9-2 This comment summarizes the mitigation measures and conclusions in Section D.7 of the EIR. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- A9-3 As stated in Section B.2.1.1 of the EIR, the former wells were plugged, capped, and abandoned in accordance with the specifications and regulations of DOGGR. These wells were plugged to avoid gas seeping into the aquifers. It should be noted that DOGGR, as part of the well permitting process, will also review the abandoned wells and require any remediation to the wells prior to the storage of gas.
- A9-4 DOGGR will have primary responsibility for implementation of the monitoring well design. It is expected that other agencies, including the California Regional Water Quality Control Board, Central Valley Region, will review the plan.
- A9-5 Although some baseline water quality samples will be taken for each well, the primary reason for the monitoring wells is to measure the pressure so that potential seepage of gas can be detected. It is anticipated that once monitoring wells are installed, baseline water quality monitoring will be taken on a quarterly basis.
- A9-6 The primary agency involved in the monitoring and suspension of gas storage activities is DOGGR. The period for depressurizing the reservoir would vary depending upon the amount of gas stored at the time the leak is detected. The precise location of a leak may not be determinable since gas may migrate along various geologic structures. It is assumed that the California Regional Water Quality Control Board will oversee any required remediation.

City of Sacramento (Tom Buford) Dated June 22, 2009

- A10-1 The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- A10-2 In response to this comment, the Final EIR has been updated to refer to the Army Depot reuse agreement between the City of Sacramento and the U.S. Department of the Army as City Agreement "95-070."

These changes and additions to the EIR do not raise important new issues about the significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5 (b) of the CEQA Guidelines.

A10-3 In response to this comment, the Final EIR has removed references to the "Sacramento Municipal Code" and has been updated to refer to the code as the "Sacramento City Code."

These changes and additions to the EIR do not raise important new issues about the significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5 (b) of the CEQA Guidelines.

- A10-4 As required by CEQA Guidelines Section 15125(a), the environmental setting of the Draft EIR was based on the baseline conditions that existed at the time the notice of preparation was published (November 2007). For this reason, the Draft EIR analyzed consistency between the Proposed Project and the 1988 General Plan and South Sacramento Community Plan, which were the applicable general and community plans at the time of Draft EIR preparation (prior to the March 3, 2009 adoption of the City of Sacramento 2030 General Plan and the Fruitridge Broadway Community Plan). The Draft EIR did analyze consistency between the Proposed Project and the 2030 General Plan and the Fruitridge Broadway Community Plan (refer to Table D.8-5 of the EIR), which were in draft status at the time of Draft EIR preparation.
- A10-5 Please refer to response A10-4.
- A10-6 The comment is noted. Public/Quasi-Public Uses are allowed in Suburban Neighborhood Low. According to the 2030 General Plan, Public/Quasi-Public Uses include the following: government buildings, public and private schools,

schools/colleges, hospitals, cemeteries, airports, and transportation and utility facilities. Therefore, the Proposed Project, a utility facility, would qualify as a Public/Quasi-Public Use. In addition, as designed, the Proposed Project would include mitigation and would be implemented such that it is compatible with surrounding land uses.

The City of Sacramento's Vision and Guiding Principles states that Sacramento will "use existing assets of infrastructure and public facilities to increase infill and re-use, while maintaining important qualities of community character." The proposed underground gas storage field is a re-use of an existing natural gas field that was in operation when the residential neighborhood existed above the field. Therefore, the use of the underground storage field will not change the community character and is in accordance with the Guiding Principles of the City.

Please refer to Section D.6 of the EIR for analysis regarding potential hazardous materials and public health and safety impacts associated with construction and operation of the Proposed Project.

A10-7 Please refer to response A10-4. Table D.8-5, Consistency Analysis with Applicable Proposed 2030 General Plan, Policy, or Goal for the Proposed SNGS City of Sacramento Project Components, of the Final EIR has been updated to include Policy LU 2.1.1 of the 2030 General Plan Land Use and Urban Design Element. Refer to Table D.8-5 of the Final EIR for consistency analysis. The addition of this policy to the Final EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

The commenter speculates that the Proposed Project would introduce a potentially hazardous condition to the neighborhood above the Florin Gas Field. Please refer to Section D.6 of the EIR for analysis regarding potential hazardous materials and public health and safety impacts associated with construction and operation of the Proposed Project.

A10-8 Please refer to response A10-4. Table D.8-5, Consistency Analysis with Applicable Proposed 2030 General Plan, Policy, or Goal for the Proposed SNGS City of Sacramento Project Components, of the Final EIR has been updated to include Policy LU 2.1.2 of the 2030 General Plan Land Use and Urban Design Element. Refer to Table D.8-5 of the EIR for consistency analysis. The addition of this policy to the Final EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines. The commenter speculates that the Proposed Project would introduce a potentially hazardous condition to the neighborhood above the Florin Gas Field. Please refer to Section D.6 of the EIR for analysis regarding potential hazardous materials and public health and safety impacts associated with construction and operation of the Proposed Project.

A10-9 Please refer to response A10-4. Table D.8-5, Consistency Analysis with Applicable Proposed 2030 General Plan, Policy, or Goal for the Proposed SNGS City of Sacramento Project Components, of the Final EIR has been updated to include Policy LU 2.1.3 of the 2030 General Plan Land Use and Urban Design Element. Refer to Table D.8-5 of the EIR for consistency analysis. The addition of this policy to the Final EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

The Proposed Project would not inhibit efforts to promote walking to services, biking, and transit use, foster community pride, and enhance neighborhood identity. The commenter speculates that the Proposed Project would introduce a potentially hazardous condition to the neighborhood and conflict with City efforts to ensure public safety in neighborhoods. Please refer to Section D.6 of the EIR for analysis regarding potential public health and safety impacts associated with construction and operation of the Proposed Project.

A10-10 Please refer to response A10-4. Table D.8-5, Consistency Analysis with Applicable Proposed 2030 General Plan, Policy, or Goal for the Proposed SNGS City of Sacramento Project Components, of the Final EIR has been updated to include Policy LU 2.1.6 of the 2030 General Plan Land Use and Urban Design Element. Refer to Table D.8-5 of the EIR for consistency analysis. The addition of this policy to the Final EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines. Please refer to Section D.6 of the EIR for analysis regarding potential hazardous materials and public health and safety impacts associated with construction and operation of the Proposed Project.

As stated in Section A.2.1, Background of the DEIR, the Florin Gas Field is a depleted natural gas field that was used for production of natural gas for an 8-year production period ending in 1987. This gas field had five extraction wells and three non-production wells that had been established above the gas field. These facilities were abandoned under the supervision of DOGGR. The majority of the residential and other land uses in the Proposed Project location were in existence

prior to original development of the Florin Gas Field for natural gas extraction. Site selection was based on the feasibility of this site as an operating natural gas field and not due to the population sector or type of neighborhood above the gas field.

The EIR does not consider property values in the context of CEQA and the determination of environmental impact because direct social and economic effects, such as project effects on property values, are not considered significant impacts under CEQA Guidelines Section 15131. Changes in property value are associated with a number of factors, such as supply and demand, general economic conditions, and location of a property. The effect of the Proposed Project on property values is highly speculative

A10-11 Please refer to response A10-4. Table D.8-5, Consistency Analysis with Applicable Proposed 2030 General Plan, Policy, or Goal for the Proposed SNGS City of Sacramento Project Components, of the Final EIR has been updated to include Policy LU 2.8.3 of the 2030 General Plan Land Use and Urban Design Element. Refer to Table D.8-5 of the EIR for consistency analysis. The addition of this policy to the Final EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

Commenter suggests that by introducing a potentially hazardous condition to the neighborhood, the project would constitute a concentration of high-impact uses in the neighborhood which could be in conflict with the City's policy to avoid social justice impacts on low-income communities. As discussed in Section D.8 of the EIR, Land Use, Agriculture and Recreation, the wellhead site would be located at the northeast corner of Junipero Street and Power Inn Road behind a 10-foot-tall masonry wall. Located approximately 3,800 feet below ground surface, the Florin Gas Field was previously utilized for gas extraction up until 1987. The Proposed Project is in no way a high impact use and implementation of Proposed Project would not constitute a concentration of similar uses. In addition, use of the Florin Gas Field is proposed because the field was previously used for gas production, the geology of the reservoir is generally well-known and the cap rock covering the permeable basin has been documented as holding natural gas in.

A10-12 Please refer to response A10-4. Table D.8-5, Consistency Analysis with Applicable Proposed 2030 General Plan, Policy, or Goal for the Proposed SNGS City of Sacramento Project Components, of the Final EIR has been updated to include Policy LU 7.2.7 of the 2030 General Plan Land Use and Urban Design Element. Refer to Table D.8-5 of the EIR for consistency analysis. The addition of this policy to the Final EIR does not raise important new issues about significant effects on the environment since the Proposed Project facilities are located within areas designated for industrial uses. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

The proposed wellhead site would be located east of existing residential uses and Power Inn Road. According to the General Plan 2030, the wellhead site has a land use designation of Employment Center Low Rise, which allows industrial or manufacturing uses that occur entirely within an enclosed building or an enclosed outdoor area with appropriately landscaped setbacks. As described in response A10-11, the wellhead site will be behind a 10-foot-tall masonry wall. The wellhead site will be appropriately landscaped and will be constructed within City of Sacramento-approved setbacks. The proposed compressor station site would be located within Depot Park, which is primarily designated for industrial land uses. As stated in response A10-11, the Florin Gas Field is located approximately 3,800 feet below ground surface and was previously used for gas extraction until 1987. In addition, use of the Florin Gas Field is proposed because the field was previously used for gas production, the geology of the reservoir is generally wellknown, and the cap rock covering the permeable basin has been documented as holding natural gas in. Please refer to Section D.6 of the EIR for analysis regarding potential public health and safety impacts and measures to limit the possibility of contamination associated with construction and operation of the Proposed Project.

- A10-13 Please refer to response A10-4. Table D.8-5, Consistency Analysis with Applicable Proposed 2030 General Plan, Policy, or Goal for the Proposed SNGS City of Sacramento Project Components, of the Final EIR has been updated to include GOAL PHS 3.1 of the 2030 General Plan Public Health and Safety Element. Refer to Table D.8-5 of the EIR for consistency analysis. The addition of this policy to the Final EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines. Please refer to Section D.6 of the EIR for analysis regarding potential public health and safety impacts associated with construction and operation of the Proposed Project.
- A10-14 Please refer to response A10-4. Table D.8-5, Consistency Analysis with Applicable Proposed 2030 General Plan, Policy, or Goal for the Proposed SNGS City of Sacramento Project Components, of the Final EIR has been updated to include GOAL ER 1.1 of the 2030 General Plan Environmental Resources Element. Refer to Table D.8-5 of the EIR for consistency analysis. The addition

of this policy to the Final EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines. Please refer to Section D.7 of the EIR for analysis regarding potential hydrology and water quality impacts associated with construction and operation of the Proposed Project.

The comment regarding need for additional General Plan analysis has been addressed with changes in the Final EIR, which will be included in the project record and considered by the CPUC during project deliberation.

- A10-15 The commenter discusses several aspects of groundwater hydrology relative to gas migration into the aquifers. The following topics addressed by the commenter include:
 - 1. Geological structure and the aquifers. As described in Section D.5.1.3 of the Final EIR, the structure of the Florin Gas Field consists of a shallow aquifer that has undergone contamination from the former Army Depot and a deeper aquifer that is the Sacramento Valley Groundwater Basin, South American Subbasin. This is the primary aquifer that provides potable water, although contamination of both aquifers would be of concern. If gas would migrate through the cap rock, it could migrate vertically and or horizontally through the geologic structure until it would reach the primary aquifers. The structures above the cap rock have varying permeability but would presumably allow gas to migrate through these structures.
 - 2. Testing of cap rock. Laboratory testing of cap rock would be accomplished by taking core samples during drilling of the gas wells. The procedures and standards for testing would be determined by DOGGR in consultation with other agencies, including the City of Sacramento. These core samples represent only a small portion of the overall formation and if they passed tests, it would not indicate that the entire cap rock is uniform. DOGGR would have the final authority to permit the wells.
 - 3. Determination of significance. The determination of a significant impact from potential migration of natural gas from the reservoir is based on the potential consequences of a leakage of gas in a high-population area.
 - 4. The Golder Report and Modeling of Geologic Structure. Additional modeling of the geologic structure is not considered feasible to address potential gas migration issues since it would be based on a series of assumptions based on limited data. The more productive process would be a gas monitoring plan.

- A10-16 The monitoring plan outlined in Mitigation Measure HAZ-2a*ii* has been modified in the Final EIR to ensure that water quality monitoring information will be made available to the City Department of Utilities (DOU). This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A10-17 Mitigation Measure HAZ-2a*ii*, which outlines the development of a gas detection plan, has been modified in the Final EIR to include a monitoring station at the Florin Potable Water Storage Reservoir. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A10-18 The potential for leakage of gas to the surface of the area is remote, and it is even less likely that gas leakage would occur within a number of locations on a simultaneous basis. This is due both to the geologic structure and the use of a reservoir monitoring program. It is expected that Mitigation Measures HAZ-2b*i* and HAZ-2b*ii* will address the contingency issues associated with the realistic scenarios associated with gas migration.
- A10-19 In response to this comment, this mitigation has been added to Mitigation Measures HAZ-2b*i* and 2b*ii* in the Final EIR. This addition to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A10-20 Mitigation Measures HAZ-2b*i* and HAZ-2b*ii* have been modified in the Final EIR to provide the requested elaboration on these mitigation measures. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A10-21 In response to this comment, the discussion of faults in the Final EIR has been modified. Although there is no indication of active faults, it is true that blind thrust faults could occur in the area because they are almost impossible to detect until a seismic event occurs. The potential for this type of fault is low. However, this is one reason that the impact of gas migration to the aquifer or the surface was considered significant and unavoidable. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes
are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- A10-22 Mitigation Measure HAZ-2ai has been modified in the Final EIR to include the Sacramento County Environmental Management Department and the Sacramento Regional Water Quality Control Board in the review of geologic and hydrogeologic analyses pertinent to the potential for gas migration to groundwater. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A10-23 Non-toxic drilling mud will be used for both HDD and for the drilling of wells. The impact analysis was conducted assuming implementation of APM 16 (Bore Plan and Frac-Out Contingency Plan). There is a potential that this mud could become contaminated due to potential contamination in the shallow aquifers. The drilling of the gas wells will also be conducted using non-toxic drilling mud. This mud could become contaminated from shallow groundwater or from the drilling process with TCE and other pollutants.
- A10-24 Section D.6, Hazardous Materials, Public Health and Safety, and Table A-1, Permits Required for the SNGS Facility, of the Final EIR have been modified to include a discussion of the California Accidental Release Prevention (CalARP) Program. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A10-25 The comment is noted. As discussed in Section F of the EIR, the project would add approximately 0.0006% to California's greenhouse gas emissions inventory, a percentage identified as minor in the Draft EIR. The characterization of the Proposed Project's greenhouse gas emissions as "minor" relative to the state's emissions did not lead to a conclusion that the impact would be less than significant. As suggested by this comment and as stated in response B5-138, the statement that the Proposed Project's emissions are "minor" has been deleted in the Final EIR to avoid confusion. Nonetheless, because California is currently emitting more greenhouse gases than the target established by AB 32, the CPUC intends that all feasible mitigation measures should be used by projects subject to Commission approval to achieve maximum greenhouse gas reductions. As stated in Section F, in order to achieve maximum greenhouse gas emissions, CPUC would implement Mitigation Measure C-1 to reduce emissions of methane and Mitigation Measure C-2 to reduce greenhouse gas emissions associated with generation of electricity for the Proposed Project. Although mitigation is

proposed, the EIR does not conclude that the project's greenhouse gas emissions would be cumulatively considerable.

A10-26 With mitigation, the noise levels would be reduced to approximately 60 to 65 dB at the closest receptors to the wellhead site.

City Code Section 8.68.060 does not preclude operation of the well drilling equipment, as the commenter suggests. The continuous operation of well drilling equipment on a 24/7 basis during well construction would be inconsistent with the schedule requirements set forth in City Code Section 8.68.060. Therefore, a variance under City Code Section 8.68.260 would be required to address well drilling activities. This variance has been added to Table A-1 of the Final EIR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- A10-27 The comment is noted. Refer to Section G, Table G-1 of the EIR for applicable submittals, reviewing agencies, and approvals regarding final design plans of the Proposed Project.
- A10-28 The comment is noted. Refer to Section G, Table G-1 of the EIR for applicable submittals, reviewing agencies, and approvals regarding final design plans of the Proposed Project.
- A10-29 The comment is noted. Refer to Section G, Table G-1, page G-52 of the EIR for traffic control plan submittal and approval requirements.
- A10-30 Please refer to response A10-4. Section D.12 of the Final EIR has been updated to include applicable goals and policies of the 2030 General Plan Mobility Element. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A10-31 The comment is noted. The Proposed Project would comply with all required improvements specified by the City of Sacramento's Department of Transportation.
- A10-32 The comment is noted. Pursuant to direction from the City of Sacramento's Department of Transportation, obstructions such as fences and gates would not be placed within the public right-of-way of Junipero Street. Please refer to Figure D.13-3 of the EIR, Rendering of 10-Foot Wellhead Site Masonry Wall, which

depicts the wall and gate on private property and not within the public right-ofway.

- A10-33 The comment is noted. Refer to Section G, Table G-1 of the EIR for applicable submittals, reviewing agencies, and approvals regarding final design plans of the Proposed Project.
- A10-34 The comment is noted. Section D.3, Biological Resources, of the Final EIR has been updated to include the edits to the discussion concerning the City of Sacramento Tree Preservation Ordinance as proposed in this comment. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- A10-35 The comment is noted. The information suggested by the commenter to be added to the project description in the Final EIR has been adequately discussed in Section B, Project Description, and Section D.8, Land Use, Agriculture and Recreation, of the EIR. Refer to Section B.4.4 for discussion regarding location of staging areas and Section D.8.1.2 for discussion of planned land uses and zoning. Section D.8, Table D.8-1 of the Final EIR has been updated to include a reference to the community garden located at Danny Nunn Park. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

Response to Document No. A11

Senator Darrell Steinberg Dated June 22, 2009

- A11-1 Comment noted. Please refer to responses A11-2 through A11-28.
- A11-2 The EIR, in Section D.6, Hazardous Materials and Public Safety, subsection D.6.6, References, and Section D.7, Hydrology and Water Quality, subsection D.7.6, References, lists all of the studies used to support the analysis and conclusions presented in the EIR regarding public safety and impacts to the underlying aquifer. The listings of the reference documents are simply references used in the environmental documentation process. The EIR independently evaluated the potential for any significant impacts related to the safety and security of the neighborhood as well as issues related to protection of the underlying aquifer from migrating natural gas. Each potential hazard is clearly identified, a discussion of that potential impact follows, all feasible mitigation is proposed, and the significance of the potential impact is evaluated in light of the analysis is incorporated directly into the analysis in the EIR. It is not incorporated by reference and is not required to be made part of the appendices.

As presented in the EIR in Section D.7, Impact H-8, while impacts to the underlying aquifer were determined to be unlikely, there is insufficient information to conclude categorically that gas migration to the overlying aquifer would not occur. Therefore, impacts were considered to be significant and unavoidable even with implementation of mitigation measures. Please refer to responses to Document A7, Department of Conservation Division of Oil and Gas and Geothermal Resources, as well as comment and response A11-3. This outlines the responsibilities of DOGGR to maintain the safety of a project.

A11-3 As required by CEQA Section 21081.6 of the Public Resources Code, the California Public Utilities Commission (CPUC) has prepared and will adopt a Mitigation Monitoring and Reporting Plan (MMRP) for adopted or required changes made a condition of approval in order to mitigate or avoid identified significant project-related environmental effects, including those related to fire safety and public health and safety. A draft MMRP is included as Section G to the EIR. The MMRP is designed to ensure compliance during implementation of the approved project. The achievement of this goal involves the following five key actions:

- 1. Adoption of appropriate mitigation measures as identified in the Final EIR and the Findings as conditions of approval of the selected project.
- 2. Implementation of the adopted mitigation measures, as necessary to achieve the avoidance of reduction of significant impacts as recognized in the Final EIR and the Findings.
- 3. Implementation of a monitoring process that confirms the application of the adopted mitigation measures.
- 4. Implementation of a monitoring process that measures the applied effectiveness of the adopted mitigation measures.
- 5. Establishment of a review and decision process that modifies the adopted mitigation measures or institutes new mitigation measures, as necessary, to achieve the avoidance or reduction of significant impacts recognized in the Final EIR and the Findings.

As a result of specific environmental issues raised, revisions have been made to the Final EIR text to further clarify mitigation measures. These revisions to the EIR are presented in strikeout-underline format in Volume 2 of the Final EIR. No new significant environmental impacts are identified as a result of revisions made to the EIR text. Therefore, the CPUC as lead agency has concluded that the environmental issues addressed in the EIR have been fully analyzed in accordance with CEQA. The mitigation measures, as clarified, are feasible and adequate to avoid or substantially reduce the potential impacts of the Proposed Project.

A11-4 Section A.3 of the EIR, Agency Use of This Document, describes the CPUC's process for consideration and analysis of the Proposed Project. As stated in Section A.3, CPUC is also the lead state agency for consideration and analysis of SNGS, LLC's proposed SNGS Facility, in accordance with CEQA. CPUC has directed the preparation of this EIR, which will ultimately be used by the CPUC, in conjunction with other information developed in the CPUC's formal record, to act on SNGS, LLC's application for a Certificate of Public Convenience and Necessity (CPCN) for construction and operation of the Proposed Project. Under CEQA requirements, the CPUC will determine the adequacy of the Final EIR and, if adequate, will certify the document as complying with CEQA. If the CPUC approves a project with significant and unmitigable impacts, it must state why in a Statement of Overriding Considerations, which would be included in the CPUC's decision on the application.

CPUC has assigned Administrative Law Judge (ALJ) Richard Smith to oversee the proceeding on the Proposed Project, and Timothy Alan Simon is the Assigned Commissioner for the CPCN application. The ALJ, in accordance with the Scoping Memo, is expected to hold evidentiary hearings on the CPCN application and will issue a proposed decision on the Proposed Project. The ALJ's decision and the evidentiary hearings will cover issues specific to the SNGS Facility, including project need, project cost, and other considerations.

- A11-5 Comment noted. Please refer to responses A11-2 through A11-28.
- A11-6 The EIR has been prepared pursuant to CEQA Public Resources Code 21000 et seq. and the CEQA Guidelines (California Code Regulations, Section 15000 et seq.). Please refer to responses A11-8 through A11-28 for responses to specific comments raised.
- A11-7 The comment is noted and will be included in the project record and considered by the CPUC during project deliberation.
- A11-8 Comment noted. Please see response A11-6 regarding adequacy of the EIR and response A11-3 regarding adequacy of mitigation measures.
- A11-9 Please refer to response A11-2. The EIR, in Section D.6, Hazardous Materials and Public Safety, subsection D.6.6, References, and Section D.7, Hydrology and Water Quality, subsection D.7.6, References, lists all of the studies used as reference and background material within the analysis of each applicable section of the EIR. These documents are not incorporated by reference pursuant to CEQA Guidelines, Section 15150, but are instead a listing of the overall reference materials used as part of the environmental documentation process. These documents are not included in the appendices because any important data or material used within the analysis is incorporated directly into the EIR. No additional information from the reports is relied upon for the analysis or conclusions aside from the specific discussion within the EIR itself. Each section's analysis was completed independent of the listed references and are not incorporated by reference and is not required to be provided separately in the appendices.
- A11-10 Please refer to response A11-3 regarding general adequacy of mitigation measures.
- A11-11 With regard to Mitigation Measure HAZ-6, the fire protection plan would cover typical measures to reduce fire hazards associated with construction. In response

to this comment, the Final EIR has been revised to provide further clarification. This includes changing the timing to be prior to construction. The City of Sacramento will be a responsible agency for the project and will also consider the approval of the project. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

A11-12 With regard to the gas detection plan, please refer to responses to Document A7, Department of Conservation Division of Oil, Gas and Geothermal Resources.

As noted in Section D.6 of the EIR, Impact 2a, while impacts to the underlying aquifer and ground surface were determined to be unlikely, there is insufficient information to conclude categorically that gas migration to the overlying aquifer or ground surface would not occur. A gas detection plan, as outlined in Mitigation Measure HAZ-2a*ii*, will potentially provide detection of leaking gas. The effectiveness of this detection method and the effectiveness in remediating such a leak in a short period of time cannot be determined with accuracy. Therefore, impacts were considered to be significant and unavoidable even with implementation of mitigation measures. Installation of monitoring wells is part of this measure and no additional significant impacts associated with the provision of this system are anticipated.

If methane is detected within the aquifers, the technology exists for the remediation of the methane. The major concern is that the drinking water may not be potable until treatment occurs.

A11-13 Please refer to responses A11-6 through A11-12. As previously stated, all applicable studies were made appropriately available for public review. The EIR is not required to provide copies of each and every document listed in the references section. Aside from separate environmental reports included within the appendices, all appropriate data and material is provided within the actual language of the EIR's analysis. The data and material is objectively evaluated in the analysis, all feasible mitigation is incorporated, and the potential impact is evaluated in light of this mitigation. The EIR provides all pertinent information necessary to allow for meaningful public and agency review. New significant information is neither required nor is it proposed to be added to the EIR and recirculation of the document pursuant to CEQA Guidelines, Section 15088.5 is not warranted.

- A11-14 As stated in the EIR in Section A.2.2, Statement of Objectives, 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 project objectives. CEQA does not require the independent review of the merits of these objectives, only in that the project may not so limit the objectives of a project in such a way as to artificially confine the range of feasible alternatives that are available. As discussed in response A11-4, the CPUC's CPCN proceedings will separately and specifically evaluate the need for the project.
- A11-15 Please refer to response A11-14. As provided in EIR in Section C, Alternatives, subsection C.2.1, Consistency with Project Objectives, the reservoir size described in project objective 3 was determine by SMUD under its service agreement with SNGS, LLC. SMUD's RFP No. 91-2, dated June 5, 1992, identified a minimum storage capacity of 3 billion cubic feet (bcf) of working gas for approximately 45 days of projected supply. Since 1992, SMUD has added gas-fired electric generating facilities within their service area. SMUD currently has five plants that are fired by natural gas. Therefore, demand for stored natural gas has increased from 1992 to 2009. As discussed in Section C, alternatives were not eliminated solely on the basis of not being able to meet the storage size as identified in project objective 3.
- A11-16 The comment regarding need for the project is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14.
- A11-17 As described in EIR Section C.6, No Project Alternative, under the No Project Alternative, the SNGS Facility would not be built, thereby not developing natural gas storage for the Sacramento metropolitan area. In the event of disruption of the gas PG&E Lines 400/401, an adverse condition in the Sacramento area 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 proposed SNGS Facility would not be built. 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. Refer to responses to Documents D1 and D2.
- A11-18 In response to this comment, Section D.7, Hydrology and Water Quality, subsection D.7.1.3, Groundwater, has been revised in the Final EIR to provide

further clarification describing the Sacramento Valley Groundwater Basin. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- A11-19 The comment is noted and will be included in the project record and considered by the CPUC during project deliberation. As discussed in response A11-4, the CPUC's CPCN proceedings will separately and specifically evaluate the need for the project. It is acknowledged that to approve the project, the CPUC would need to adopt a Statement of Overriding Considerations.
- A11-20 In accordance with Section 15126.6 of the CEQA Guidelines, a range of reasonable alternatives to the project that could obtain the basic objectives of the project and that are capable of eliminating any significant environmental impacts was addressed in the EIR. CEQA does not require an EIR to consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives (CEQA Guidelines Section 15126.6 [a]). The analysis of alternatives is based on whether the alternative would eliminate or reduce significant environmental effects as well as compares the alternative to the Proposed Project in terms of relative environmental impacts and feasibility. In total, the alternatives screening process culminated in the identification and screening of 18 potential alternatives (see Section C of the EIR). These alternatives range from minor design variations/options to SNGS, LLC's Proposed Project; to alternative gas field locations; to alternatives to natural gas storage, including alternative fuel supply and conservation. Further analysis of alternatives to the project would not provide more meaningful data on ways to lessen or avoid those impacts deemed significant given the comprehensive nature of the analysis. Therefore, the CPUC has determined that the evaluation of alternatives conducted in the EIR to the project provides a range of reasonable alternatives and alternative locations to the project as defined by CEQA Guideline Section 15126.6; hence, no further analysis of alternatives to the project is warranted.
- A11-21 As stated in the EIR in Section E.4, Economic Consideration, economic feasibility was not considered in this EIR in the evaluation of alternatives to the Proposed Project. Economic factors presented in Section E.4 of the EIR were provided for information purposes only and may be considered separately in the CPUC's CPCN proceedings.
- A11-22 The EIR has been prepared pursuant to CEQA Public Resources Code 21000 et seq., and the CEQA Guidelines (California Code of Regulations, Section 15000 et seq.). The project description evaluated in the EIR provides sufficient information

needed for evaluation and review of environmental impacts of constructing and operating the proposed SNGS project pursuant to Section 15124 of the CEQA Guidelines.

The CPUC acknowledges that should the project result in substantial changes to the project description (i.e., direct connection by other users than SMUD), subsequent environmental documentation and review will be required pursuant to CEQA Public Resources Code 21000 et seq., and the CEQA Guidelines California Cod of Regulations, Section 15000 et seq.

- A11-23 The analysis conducted in the EIR assumes that there would not be any substantial changes to the operation and maintenance of SMUD natural gas pipelines as a result of the project. The CPUC acknowledges that should the project result in substantial changes to the operation and maintenance of SMUD's natural gas pipelines that could result in environmental effects, subsequent environmental documentation and review will be required. Refer to response A11-5.
- A11-24 SNGS, LLC does not have eminent domain authority. The comment regarding eminent domain is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to responses A11-22 and A11-23 regarding the project description evaluated in the EIR and foreseeable future actions.
- A11-25 The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- A11-26 The comment is noted. The CPUC Public Participation Hearing (PPH) process is independent from the CEQA process. Therefore, the PPH does not necessarily need to be during the Draft EIR review period. If determined necessary by the ALJ, the CPUC could conduct another PPH prior to its decision on the project.
- A11-27 Please refer to response A11-13.
- A11-28 As stated in Section A.2.2 of the EIR, Statement of Objectives, the objectives of the Proposed Project are primarily to 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, and to 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.

The analysis conducted in the EIR assumes that there would not be any substantial changes to the operation and maintenance of SMUD's electrical generating power plants as a result of the project. The CPUC acknowledges that should the project result in substantial changes to the operation and maintenance of SMUD's facilities that could result in environmental effects, subsequent environmental documentation and review will be required.

Response to Document No. A12

Governor's Office of Planning and Research, State Clearinghouse and Planning Unit (Terry Roberts) Dated June 22, 2009

- A12-1 This letter is a formal disclosure of which state agencies received a copy of the Draft EIR for review and acknowledges that the CPUC has complied with the State Clearinghouse review requirements for draft environmental documents pursuant to CEQA.
- A12-2 Please refer to responses A1-1 and A1-2 in response to comments received from the Central Valley Flood Protection Board letter dated April 8, 2009.

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Response to Document No. A13

Governor's Office of Planning and Research, State Clearinghouse and Planning Unit (Terry Roberts) Dated June 23, 2009

- A13-1 This letter serves to forward an additional comment letter received by the State Clearinghouse following the close of their public review period that ended June 18, 2009. The end of the public review period established by the CPUC as lead agency was June 22, 2009; therefore, this letter is not considered a late comment by the CPUC.
- A13-2 Please refer to responses A9-1 through A9-6 regarding comments received from the California Regional Water Quality Control Board Central Valley Region letter dated June 22, 2009.

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B. Community Groups, Non-Profit Organizations, and Private Organizations

Response to Document No. B1

Environmental Council of Sacramento (Graham Brownstein) Dated April 27, 2009

- **B1-1** This comment is noted. According to CEQA Guidelines Section 15205(b), the customary review period for a Draft EIR is 45 days. CPUC extended the SNGS Draft EIR review period from May 25, 2009, to June 22, 2009, which allowed the public a 72-day review period. This provided 27 additional days beyond the usual 45 days of review for the Draft EIR.
- **B1-2** Section D.6, Hazardous Materials, Public Health and Safety, of the EIR concludes that 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. However, 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.

The CPUC will use the Final EIR, in conjunction with other information developed in the CPUC's formal record, to act on SNGS, LLC's application for a CPCN for construction and operation of the Proposed Project. Under CEQA requirements, the CPUC will determine the adequacy of the Final EIR and, if adequate, will certify the document as complying with CEQA. If the CPUC approves a project with significant and unmitigable impacts, it must state why in a "Statement of Overriding Considerations," which would be included in the CPUC's decision on the application.

B1-3 As stated in Section A.2.1, Background of the DEIR, the Florin Gas Field is a depleted natural gas field that was used for production of natural gas for an eight-year production period ending in 1987. This gas field had five extraction wells and three non-production wells that had been established above the gas field. These facilities were abandoned under the supervision of DOGGR. The majority of the residential and other land uses in the Proposed Project location were in existence prior to original development of the Florin Gas Field for natural gas extraction. Site selection was based on the feasibility of this site as an operating natural gas field and not due to the population sector or type of neighborhood above the gas field.

The EIR does not consider property values in the context of CEQA and the determination of environmental impact because direct social and economic

effects, such as project effects on property values, are not considered significant impacts under CEQA Guidelines Section 15131. Changes in property value are associated with a number of factors, such as supply and demand, general economic conditions, and location of a property. The effect of the Proposed Project on property values is highly speculative.

B1-4 Please refer to responses B1-1 through B1-3.

Response to Document No. B2

Our Neighborhood Partnership (Luis Wu) Dated June 5, 2009

- **B2-1** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B2-2** The comment's support of the EIR is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation.

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Response to Document No. B3

Pacific Gas and Electric Company (Steve Whelan) Dated June 17, 2009

- **B3-1** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B3-2** The comment is noted and will be included in the project record and considered by the CPUC during project deliberation. As discussed in response A11-4, the CPUC's CPCN proceedings will separately and specifically evaluate the need for the project. As listed in the comment, one of the primary objectives of the Proposed Project, as stated by SNGS, LLC, is to increase storage of natural gas in the event of an interruption of the natural gas importation system. CEQA does not require the independent review of the merits of these objectives, only in that the project may not so limit the objectives of a project in such a way as to artificially confine the range of feasible alternatives that are available.
- **B3-3** Section B.2 of the Executive Summary in the EIR lists all the alternatives that have been eliminated from full evaluation. The new natural gas supply pipeline alternative described in this comment is, therefore, not carried forward in the EIR as a viable alternative and was eliminated from consideration. As discussed in response A11-4, the CPUC's CPCN proceedings will separately and specifically evaluate the need for the project. It is acknowledged that Pacific Gas and Electric (PG&E) has an integrated and highly reliable gas supply network.
- **B3-4** The comment is noted. Section B.2 of the EIR indicates that the project components include a buried 16-inch interconnection pipeline between the compressor station site and Sacramento Municipal Utilities District (SMUD) Line 700. Furthermore, it describes that the applicant proposes to connect the SNGS Facility to PG&E Line 400/401 using capacity on the existing SMUD Line 700, which is connected to PG&E Line 400/401 along County Road 29 near County Road 88 in Winters, California.

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Response to Document No. B4

Tallac Village Neighborhood Association (Patti Uplinger) Dated June 18, 2009

- **B4-1** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B4-2** The comment's opposition to the project is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation. For further discussion of the public health and safety issues identified in this comment please refer to response A11-3 regarding the overall mitigation monitoring and reporting plan, response A11-11 regarding the fire protection plan, and response A11-12 regarding the gas detection plan and emergency response plan.
- **B4-3** The comment is noted. Please refer to response B1-3 regarding property values.
- **B4-4** The comment's opposition to the project is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation.

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Response to Document No. B5

Remy, Thomas, Moose, and Manley, LLP (Tina Thomas) on Behalf of Avondale Glen Elder Neighborhood Association (AGENA) Dated June 22, 2009

B5-1a It is noted that the commenter agrees that the EIR's impact conclusions with regard to public health and safety and water quality are correct. It is also noted that the commenter believes that while the conclusions reached are correct, the EIR actually understates impacts to public health and safety and water quality. Please refer to Document A7, a comment letter from the Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR), which indicates that the EIR overstates impacts to public health and safety and water quality, as well as Documents D1 and D2, in which technical experts representing the applicant provide different opinions indicating that the EIR overstates these impacts.

Disagreement among experts, consultants, or attorneys regarding the material, data, or significance determinations does not mean the EIR is legally inadequate. It is up to the lead agency to evaluate the presented material and data and make their own determinations regarding the material's competence and accuracy. Case law clearly establishes the right of the lead agency to accept one expert opinion over another, so long as the decisions are supported by substantive evidence.

The EIR appropriately states the potential impacts applicable to the Proposed Project, objectively evaluates those potential impacts, provides appropriate mitigation designed to lessen those potential impacts, and conservatively evaluates those impacts in light of the mitigation in order to make a final impact determination. All conclusions within the EIR are based upon substantive evidence. The EIR is a legally adequate and defensible EIR pursuant to CEQA and the CEQA Guidelines and has provided sufficient detail and evidence to allow for meaningful public and agency review. Please refer to response A11-13 regarding the adequacy of the EIR and the need to recirculate.

Please refer to responses B5-2 through B5-942 for responses to specific comments raised.

B5-1b The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **B5-2** Please refer to response B5-1a. The EIR <u>does not state</u> that the lack of available data concerning the reservoir <u>would increase</u> the likelihood for an accident as stated in this comment. Section D.6, Hazardous Materials, Public Health and Safety, of the EIR concludes that 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.
- **B5-3** While the criteria for determining the significance of an impact are unique to each area of the environmental analysis, the following classifications were uniformly applied throughout the EIR to each identified impact:

Class I: Significant; cannot be mitigated to a level that is less than significant.

- **Class II:** Significant; can be mitigated to a level that is less than significant.
- **Class III:** Adverse but less than significant, no mitigation required.
- Class IV: Beneficial impact.

No Impact: No impact identified.

The EIR concludes that Class I impacts could occur to health and safety and water quality as a result of the project. There are no further classifications that pertain to "even more significant" impacts than Class I. Please refer to responses B5-4 through B5-10 for specific issues raised. Please refer also to response B5-1a and A11-13 regarding the sufficiency of the EIR.

As previously stated, the EIR conducted a thorough review of the potential environmental impacts and issues that may be reasonably attributed to the Proposed Project, all of which are supported in the record by substantial evidence.

- **B5-4** Please refer to responses B5-303 through B5-309 for responses to specific comments raised by Dr. Roy J. Shelmon in Attachment B to Document B5.
- **B5-5** Please refer to responses B5-310 through B5-326 for responses to specific comments raised by Dr. Alvin Greenberg in Attachment C to Document B5.

- **B5-6** Please refer to responses B5-327 through B5-340 for responses to specific comments raised by Dr. Johnson in Attachment D to Document B5.
- **B5-7** Please refer to responses B5-341 through B5-925 for responses to specific comments raised by Dr. Williams in Attachment E to Document B5.
- **B5-8** Please refer to responses B5-926 through B5-942 for responses to specific comments raised by Mr. Casias in Attachment F to Document B5.
- **B5-9** Please refer to responses B5-290 through B5-302 for responses to specific comments raised by Dr. Robertson in Attachment A to Document B5.
- **B5-10** Please refer to response B5-1a.
- **B5-11** Please refer to responses A11-22 and A11-23 regarding the project description evaluated in the EIR and foreseeable future actions.
- **B5-12** Please refer to response B5-11.
- **B5-13** Please refer to response B5-11.
- **B5-14** Please refer to response B5-11.
- **B5-15** SNGS, LLC does not have eminent domain authority. The comment is noted regarding eminent domain and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response B5-11.
- **B5-16** Please refer to response B5-15.
- **B5-17** It is expected that the Proposed Project will remain in operation for at least 30 years. As described in Section B.6 of the EIR, the abandonment process will include:
 - Cleaning and abandonment of pipelines in place
 - Depressurization of the reservoir
 - Removal of surface structures
 - Plugging and abandonment of the wells per DOGGR regulations.

Abandonment of the project will not result in any new significant impacts than those described for construction and operation of the Proposed Project; therefore, the development of an abandonment plan including mitigation measures is not necessary.

B5-18 The comment regarding need for the project is noted and will be included in the project record and considered by the CPUC during project deliberation. Refer to response A11-4 regarding purpose and need of the project and response A11-14 regarding project objectives.

The comment acknowledges the identification of the *Westlands Water District* case dealing with an Environmental Impact Statement (EIS) pursuant to NEPA, not CEQA. The comment also acknowledges the statement derived from *Mountain Lion Foundation v. Fish & Game Commission* (1997) 16 Cal.4th 105, 122, which is discussing "objectives" common to the overall objectives related to the delisting of species under both the federal and state Endangered Species Acts. While NEPA can be applied to help interpret and adjudicate CEQA cases when it closely parallels CEQA, the arguments appear unpersuasive as to why the NEPA precedent from the *Westlands Water District* case should be interpreted to conclude that the EIR's project objectives are insufficient. Section 15124(b) of the CEQA Guidelines, states the project description shall contain "a clearly written statement of objectives [that] will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary." The EIR fulfilled this requirement.

- **B5-19a** The comment regarding need for the project is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives.
- **B5-19b** As defined by SNGS, LLC in project objective 1, the project applicant states that there is a need for additional, strategically located natural gas storage in California. As stated by SNGS, LLC, the need is reflected in the Governor's Energy Policy Statement as well as in policy statements of both the California Energy Commission and CPUC. Please refer to response A11-14 regarding project objectives and response A11-20 regarding alternatives considered in the EIR.
- **B5-20a** The comment regarding need for the project is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives.

- **B5-20b** As described in Section C.6, No Project Alternative, of the EIR, SMUD has identified a need for at least a 30-day backup supply of natural gas in the event of an outage of the Pacific Gas and Electric (PG&E) natural gas storage system. The primary objective of the proposed project, as stated by SNGS, LLC, is to increase storage of natural gas in the event of an interruption of the natural gas importation system. CEQA does not require the independent review of the merits of these objectives, only in that the project may not so limit the objectives of a project in such a way as to artificially confine the range of feasible alternatives that are available. As discussed in response A11-4, the CPUC's Certificate of Public Convenience and Necessity (CPCN) proceedings will separately and specifically evaluate the need for the project.
- **B5-20c** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-20d** Please refer to response B5-20b.
- **B5-21** The comment regarding need for the project is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives.
- **B5-22** In response to this comment, the Final EIR has been revised to correct the identified typographical error and change "SNGS" to "SMUD." This change to the EIR does not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-23** The comment regarding need for the project is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives.
- **B5-24** The comment regarding need for the project is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives.
- **B5-25** The comment regarding need for the project is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives.

- **B5-26** The comment regarding need for the project is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives and response A11-20 regarding alternatives considered in the EIR.
- **B5-27** The comment regarding need for the project is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives and response A11-20 regarding alternatives considered in the EIR. Please also refer to response B5-28.
- **B5-28** The commenter discusses the holding from the City of Santee v. County of San Diego (1989) 214 Cal.App.3d 1438 and cites to page 1,455 from the case, asserting that the case represents that if project objectives are defined too narrowly, then the EIR's treatment of any alternatives must be inadequate. The issue central to this case relates to changes and confusion in the project description as to the "temporary" nature of a detention facility coupled with the board of supervisors providing a seven-year lifespan for the use of the facility. Moreover, the EIR did not provide for any guidance as to the use of the site after this seven-year term is complete. Therefore, the court found that the EIR was "fatally flawed due to its inaccurate project description and the omission of an adequate analysis for future uses" for the proposed temporary facility (Id. at page 1,447). Neither the flaws in the EIR nor the court's reasoning were based upon project objectives being defined too narrowly. As stated by the Supreme Court, "although a lead agency may not give a project's purpose an artificially narrow definition, a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal" (in re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings (2008) 43 Cal.4th 1143, 1166).

A project description shall contain, among other requirements, a clearly written statement of objectives to help develop a reasonable range of alternatives to be evaluated in the EIR and to aid in the preparation of findings or a statement of overriding considerations if needed (CEQA Guidelines, Section 15124(b)).

CEQA does not require the independent review of the merits of these project objectives, only in that the project may not so limit the objectives of a project in such a way as to artificially confine the range of feasible alternatives that are available. As discussed in response A11-4, the CPUC's CPCN proceedings will separately and specifically evaluate the need for the project. The project objectives were defined appropriately and are not narrowly construed. The Proposed Project evaluated 18 different potential alternatives and narrowed those alternatives to a reasonable range within the EIR. The EIR appropriately evaluated each of these alternatives in sufficient detail to allow meaningful comparison and public review. The project objectives are adequate and appropriately defined and the alternatives analysis is complete. Please refer to response A11-20 regarding alternatives considered in the EIR.

B5-29 Please refer to response A11-20 regarding project alternatives considered in the EIR.

The comment regarding unduly narrowing project objectives is incorrect. Please refer to responses B5-27, B5-28, and A11-14.

The EIR in Section C.1 provides the methodology in identifying an assessment of a reasonable range of project alternatives. In total, 18 alternatives in addition to the No Project Alternative (discussed in Section C.6 of the EIR) were considered in the screening process. Alternatives considered included six alternative storage site locations within Sacramento County and in close proximity to SMUD's service area (see EIR Figure C-1); 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).

As described in response A11-20, alternative locations evaluated provide a reasonable range of alternative site locations and no further evaluation of additional alternative sites is warranted or necessary.

B5-30 Please refer to response B5-29 regarding the project alternatives analysis.

As described in response A11-20, the 18 alternatives evaluated in the EIR provide a reasonable range of alternatives and no further evaluation of additional alternatives is warranted or necessary.

- **B5-31** As described in responses A11-20 and B5-29, the alternatives evaluated in the EIR provide a reasonable range of alternatives, including the evaluation of alternative fuel supplies, as well as demand-side management and conservation; therefore, no further evaluation of additional alternatives is warranted or necessary.
- **B5-32** Please refer to response B5-31.

B5-33a As stated in the EIR in Section C.2.2, Feasibility, for the screening analysis, the legal, regulatory, and technical feasibility of potential alternatives was assessed. The assessment was directed toward reverse reason, that is, a determination was made as to whether there was anything about the alternative that would be infeasible on technical, legal, or regulatory grounds.

The screening analysis did not focus on relative economic factors or costs of the alternatives since the CEOA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of project objectives or would be more costly" (Section 15126.6(b) of the CEQA Guidelines). The CPUC's CPCN proceedings may separately and specifically consider cost issues as they pertain to economic feasibility. The Executive Summary of the EIR specifically states that "economic factors or costs of the alternatives (beyond economic feasibility) were not considered in the screening of alternatives since CEQA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may 'impede to some degree the attainment of project objectives or would be more costly" (CEQA Guidelines Section 15126.6(b)). The commenter interprets this language to mean that despite the assurance in the EIR that factors or costs were not used in the screening process of the environmental document, the EIR still inappropriately considered economic costs. Therefore, in response to this comment, the Executive Summary of the Final EIR has been revised to state that economic feasibility was not considered in the screening of alternatives consistent with the discussion provided in EIR in Section C, Alternatives, and Section E, Comparison of Alternatives, and the language regarding "beyond economic feasibility" has been removed.

These changes and additions to the EIR do not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

Please also refer to response A11-21 regarding consideration of economic feasibility.

B5-33b The commenter raises an issue in regard to the use of jurisdictional boundaries and control of alternative sites as inappropriate uses in evaluating alternatives for the Proposed Project. The section identified by the commenter appears to be the following information derived from the Executive Summary of the EIR:

Alternatives to the Proposed Project were screened according to CEQA guidelines to determine those alternatives to carry forward for analysis in the EIR and alternatives to eliminate from detailed consideration. The alternatives were primarily evaluated according to: (1) whether they would meet most of the basic project objectives; (2) whether they would be feasible considering legal, regulatory, and technical constraints; and (3) whether they have the potential to substantially lessen any of the significant effects of the Proposed Project. Other factors considered, in accordance with CEQA Guidelines (Section 15126.6(f)), were site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, jurisdictional boundaries, and proponent's control over alternative sites. Economic factors or costs of the alternatives (beyond economic feasibility) were not considered in the screening of alternatives since CEQA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of project objectives or would be more costly" (CEQA Guidelines Section 15126.6(b)).

The information provided is for general information that was evaluated while trying to meet the standards of CEQA in order to develop a reasonable range of feasible alternatives that would attain most of the project objectives while also avoiding or lessening the impact of the Proposed Project's significant effects. The commenter misrepresents the analysis in the EIR that jurisdictional boundaries and control were key reasons for rejecting the proposed alternatives.

A lead agency need not consider alternatives that are not feasible. "Feasible" is defined under Section 15364 of the CEQA Guidelines as, "capable of being accomplished in a successful manner...taking into account economic, environmental, legal, social, and technical factors." Further, in developing this reasonable range of suitable alternatives, lead agencies may utilize the factors provided under Section 15126.6(f)(1) of the CEQA Guidelines, as derived from *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, which include, among others: site suitability, general plan consistency, jurisdictional boundaries, and issues related to site control.

The EIR actually evaluated in detail 18 alternatives in order to create a reasonable range of project alternatives. While the EIR evaluated project objectives as well as feasibility issues as provided in the CEQA Guidelines, it also evaluated other

technical issues, such as the physical characteristics and ability of the potential alternative to store natural gas and risks related to fault lines and leakage. Section B.2 of the Executive Summary of the EIR details all of the alternatives considered, along with an explanation as to why those alternatives were not carried forward for further review within the EIR in compliance with CEQA Guidelines, Section 15126.6(c). Each of the eliminated alternative options was evaluated against all of the screening criteria and the findings as to why the alternatives were eliminated were summarized in the Executive Summary of the EIR. In fact, not one of the potential alternatives was eliminated from review in the EIR due to economic feasibility (refer to response B5-33a) or control/jurisdictional issues.

- **B5-34** Please refer to response A11-4 regarding purpose and need of the project.
- **B5-35a** As stated in the EIR in Section A.2.2, Statement of Objectives, 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 project objectives. CEQA does not require the independent review of the merits of these objectives, only in that the project may not so limit the objectives of a project in such a way as to artificially confine the range of feasible alternatives that are available.

As discussed in response A11-4, the CPUC's CPCN proceedings will separately and specifically evaluate the need for the project.

As described in Section C of the EIR, alternatives were not solely eliminated if they could not provide the 4 billion cubic feet (bcf) storage capacity described under project objective 3. In fact, the Freeport Gas Field, with an estimated storage capacity of + 1bcf and the Snodgrass Slough Gas Field, with an estimate storage capacity of +2 bcf, were both selected for further evaluation in the EIR. As described in Section C of the EIR, these alternatives were selected for further evaluation in the EIR as each of these alternatives were determined to meet most of the project objectives.

- **B5-35b** As discussed in response A11-20, the analysis of alternatives focused on alternatives capable of eliminating or reducing significant adverse impacts of the proposed project.
- **B5-35c** As described in Section C.1 of the EIR, Alternatives Development and Screening Process, the proposed project is described in detail in Section B of the EIR. Alternatives to the Proposed Project were suggested during the scoping period

(November through December 2007) by the general public and local agencies in response to the Notice of Preparation (NOP). Other alternatives were developed by EIR preparers or presented by SNGS, LLC.

B5-36 In accordance with CEQA requirements, this EIR identifies alternatives to the proposed SNGS Facility that could avoid or minimize significant environmental impacts associated with the project as proposed by SNGS, LLC (including the No Project Alternative), and evaluates the environmental impacts associated with these alternatives. Based on this environmental impact assessment, as well as the relative sensitivities of impacts in the study region, this EIR determines the Environmentally Superior Alternative as required by CEQA (see Section E of the EIR).

The analysis of alternatives presented in the EIR is based on whether the alternative eliminates or reduces significant environmental effects as well as compares the alternative to the Proposed Project in terms of relative environmental impacts and feasibility. The alternative discussion then concludes with identification of the environmentally superior alternative. No further analysis of alternatives to the Proposed Project is required or warranted.

The commenter relies upon the case *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, as an argument that the EIR is insufficient because the EIR did not include a "quantitative, comparative analysis" of the differences between the Proposed Project and the environmentally superior alternative. In regards to the alternative discussion, this case focuses on a specific issue related to the use of coal as opposed to natural gas and the lack of sufficient data for the lead agency to conduct a meaningful assessment between the use of these two fuels as well as a mischaracterization of potential reductions of criteria pollutants (*id.* at pp. 733–735). In this situation, such analysis was required in order to fulfill the lead agency's duty for informed decision making regarding the alternatives and their comparison to the Proposed Project.

As stated in the CEQA Guidelines, Section 15126.6(d), an "EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison." According to *Practice Under the California Environmental Quality Act*, the analysis is sufficient if it assesses the relative merits of the project and the alternatives (Kostka and Zischke, 2009, Sec. 15.36). See also *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 547-548, which discusses the appropriate level of review required for a suitable
alternatives discussion. The facts and conditions related to the Proposed Project will dictate the level of review required for each alternative analysis.

The EIR included a considerable review of proposed alternatives within the alternative analysis. A matrix summary of each alternative is included in the Executive Summary of the EIR. The potential impacts and benefits of each alternative as compared to the Proposed Project are again discussed and further revaluated in the Executive Summary of the EIR. Then the Environmentally Superior Alternatives are evaluated and discussed in this same section. Substantial analysis has been provided within the EIR to allow for meaningful public review and to allow informed decision making on the part of the lead agency. The commenter's assertion that the EIR is insufficient in this regard lacks merit.

- **B5-37** Section C.4.1, Gas Field Alternatives, subsection C.4.1.1, Freeport Gas Field, of the EIR provides further information on the field and illustrates the Freeport Gas Field in relation to surrounding land uses.
- **B5-38** For purposes of the analysis conducted in the EIR, it was assumed that facilities required to develop alternative gas fields would be placed as to avoid sensitive resources to the extent possible. If avoidance was not possible, mitigation measures could be developed to avoid potentially significant resources, unless otherwise noted in the analysis.
- **B5-39** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required. Please refer to response A11-14 regarding project objectives.
- **B5-40** Section C.4.1, Gas Field Alternatives, subsection C.4.1.2, Snodgrass Slough Gas Field, of the EIR provides further information on the field and illustrates this gas field in relation to surrounding land uses.
- **B5-41** Section D.10, Population and Housing, of the EIR provides population characteristics for the proposed project and provides a comparison of the project impacts to those associated with the Snodgrass Slough Gas Field alternative.
- **B5-42** Please refer to response B5-38 regarding placement of the alternative gas field. For purposes of the analysis conducted in the EIR, connection to PG&E's natural gas system were assumed to have similar impacts as those associated with the Proposed Project. Connection to the SMUD pipeline would require a much longer pipeline. If would be more feasible to transfer gas through one of the existing pipeline interconnects.

B5-43 As stated in Section C.4 of the EIR, development of the Snodgrass Slough Gas Field would provide a natural gas storage field outside of an urban area, thereby reducing the potential public safety impacts associated with the Proposed Project while partially meeting project objectives 1, 2, and 3. While this field produced natural gas between 1993 and 1998, the geologic structure has not been studied in detail and therefore the technical feasibility may be limited and require further geologic evaluation and special engineering. While careful consideration needs to be given to the potential technical limitations of this alternative, it is considered to be potentially feasible. Therefore, it has been recommended to be carried forward for further analysis in the EIR, as it would partially meet project objectives, is potentially technically feasible, and has the ability to reduce project impacts.

To fully evaluate Snodgrass Slough's viability as a gas field, the following tasks would be necessary:

- Refine geologic structure by analyzing existing seismic reflection data. If seismic reflection data does not exist, shoot lines to generate data required to refine analysis of reservoir geometry would be necessary.
- Obtain and analyze well data: wireline logs, production data, lab analyses of cores.
- Obtain existing technical reports from previous operator(s) of Snodgrass Slough.
- Develop a revised subsurface conceptual model of the Snodgrass gas reservoir.
- Develop and run a reservoir computer model and calibrate to existing history of well production volumes and pressures.
- **B5-44** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required. Please refer to response A11-14 regarding project objectives.
- **B5-45** Please refer to response B5-36.
- **B5-46** Section C.4.1, Gas Field Alternatives, Subsection C.4.1.3, Thornton Gas Field, of the EIR provides further information on the field and illustrates this gas field in relation to surrounding land uses. Section D.10, Population and Housing, provides population characteristics for the proposed project and provides a comparison of the project impacts to those associated with the Thornton Gas Field alternative.
- **B5-47** Please refer to response B5-42.

- **B5-48** As described in Section C.4.1.2 of the EIR, development of the Thornton Gas Field is technically feasible and would provide a natural gas storage field outside of an urban area, thereby reducing potential health and safety impacts associated with the Proposed Project while meeting project objectives. While this alternative may create additional impacts associated with construction and operation of proposed facilities adjacent to the Cosumnes River Preserve, it was carried forward for further analysis in the EIR as it would meet project objectives, is technically feasible, and has the ability to reduce significant and unavoidable public health and safety project impacts, assuming facilities would be located outside the Cosumnes River Preserve.
- **B5-49** Please refer to response B5-35c for methodology in identifying alternatives to be evaluated and response A11-20.
- **B5-50** As discussed in Section C.5.1.1 of the EIR, the Stone Lake Gas Field alternative was not eliminated from further evaluation based on environmental considerations, but rather on the fact that it would not meet project objectives criteria and is not technically feasible due to three known faults, which may create pathways for leakage.
- **B5-51** The presence of the three faults occurring at the Stone Lake Field was inferred based on available data for the gas field. This was not the only reason that the site was eliminated from detailed analysis. The primary reason was the small potential storage capacity of the reservoir, which would make gas storage not feasible since the same types of pipelines and other facilities would be required. The potential of an inferred fault or anomaly in the Florin Gas Field is cause for concern, but three confirmed faults at the Stone Lake Field is of greater concern.
- **B5-52** Please refer to responses A11-14, B5-35A, B5-50, and B5-51. Working capacity to store natural gas under the Stone Lake Gas Field alternative was estimated be less than 1 bcf. As indicated in comment B5-35a, no known natural gas storage sites in the state have been developed at a capacity of less than 2 bcf. Therefore, due to the Stone Lake Gas Field alternative's limited capability to store natural gas (less then 1 bcf), it was determined not to be capable of meeting most project objectives.
- **B5-53** As discussed in Section C.5.1.2 of the EIR, the Poppy Ridge Gas Field alternative is located directly beneath a residential area, and therefore, does not have the potential to avoid or substantially lessen project impacts to public health and safety as similar baseline conditions to the proposed project would exist.

Furthermore, as discussed in Section C.5.1.2 of the EIR, the Poppy Ridge Gas Field alternative was not eliminated solely based on environmental considerations but also due to its limited ability to store natural gas with an estimated 0.12 bcf of storage capacity. As indicated in comment B5-35a, no known natural gas storage sites in the state have been developed at a capacity of less than 2 bcf. Therefore, due to the Poppy Ridge Gas Field alternative's limited capability to store natural gas (0.12 bcf), it was determined not to be capable of meeting most project objectives.

- **B5-54** The Sacramento Airport Gas Field alternative was not eliminated solely on the presence of the faults and discontinuities, but on the questionable potential for gas to be stored and recovered due to the complexity of the geology. This information was gained from the field records and would render the site unsuitable for storage. Furthermore, use of the site for gas storage would substantially impact the operation of the Sacramento Municipal Airport. Even if a fault or anomaly exists at the Florin Gas Field, this would not be as great a concern as the complex geology at the Sacramento Airport.
- **B5-55** As discussed in Section C.5.1.3 of the EIR, the Sacramento Airport Gas Field alternative was not eliminated from further evaluation based on environmental considerations, but rather on the fact that it would not meet technical feasibility due to the geologic formation. Please refer to response B5-54.
- **B5-56** Please refer to response A11-14 regarding project objectives and response A11-20 regarding alternatives.
- **B5-57a** Please refer to response A11-14.
- **B5-57b** The comment is noted and will be included in the project record and considered by the CPUC during project deliberation. As discussed in response A11-4, the CPUC's CPCN proceedings will separately and specifically evaluate the need for the project.
- **B5-58** In response to this comment, the Final EIR has been revised to correct the identified error in the Executive Summary. These changes and additions to the EIR do not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-59** The comment is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives and response A11-20 regarding alternatives.
- **B5-60** Please refer to response B5-58. The comment is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives and response A11-20 regarding alternatives.
- **B5-61** The comment is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives and response A11-20 regarding alternatives.
- **B5-62** The commenter suggests burying the natural gas tanks. This may be possible and would reduce visual impacts, but this method would increase the impacts associated with construction, including creation of large amounts of soil that would require removal, and requiring additional underground piping. Use of underground tanks will not appreciably increase safety since the fire and explosion hazards would still be present. Additionally, there would be the potential for undetected underground leakage from pipes and the tanks themselves.

The commenter also suggests storage of the gas as liquefied natural gas (LNG). The commenter is correct that storage of the gas as LNG would require fewer tanks. However, the commenter does not take into account the added processing and risk associated with LNG production. It will take a large industrial facility to treat and process the LNG and another facility to convert the gas back into its gaseous form. LNG is much more explosive and flammable than compressed natural gas, must be kept is specialized cryogenic tanks, and if ignited burns at much higher temperatures. Therefore, this alternative is considered infeasible based on environmental and cost considerations.

- **B5-63** Alternatives to the project presented in SNGS, LLC's application for a CPCN were included in the alternatives screening process as described in responsA11-20. As discussed in Section C of the EIR, the alternative compressor station sites as identified by SNGS, LLC were eliminated in the screening process and not fully evaluated in the EIR.
- **B5-64** The wellhead site was selected by the applicant to best support the gas storage project. Contrary to the comment, the injection wells will be slant drilled to reach portions of the field. It is likely that alternative well site locations will not reach

all areas of the reservoir, which would require two or more sites, which will increase the impacts associated with the sites through increased pipelines and other facilities.

B5-65 Section C, Alternatives, of the EIR considered conservation along with demandside management as an alternative to the proposed project. As described in Section C, Alternatives, reductions in demand through related energy conservation programs are an important part of PG&E's and SMUD's future operations and are incorporated into long-term energy need forecasts. As separate and stand-alone programs, however, these programs do not provide either the capacity or reliability needs of providing natural gas storage to the Sacramento metropolitan area. Energy conservation and demand-side management would not occur at a scale that would eliminate the need for natural gas storage in the Sacramento metropolitan area as described in Section A.2 of the EIR, Project Purpose and Need. While this alternative would avoid environmental impacts of the Proposed Project, this alternative was not carried forward for further analysis in the EIR because it would not meet project objectives and feasibility criteria.

The comment regarding need for the project is noted and will be included in the project record and considered by the CPUC during project deliberation. Please refer to response A11-14 regarding project objectives and response A11-20 regarding alternatives considered in the EIR.

- **B5-66** Please refer to response B5-65.
- **B5-67** Please refer to response B5-65.
- **B5-68** Approximately 30% of SMUD's electrical generation is produced by natural gas.
- **B5-69** Please refer to response B5-65.
- **B5-70** Please refer to response B5-65.
- **B5-71** In response to this comment, the Final EIR has been revised to provide further clarification regarding alternative fuel supplies evaluated in the EIR. These changes and additions to the EIR do not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or change the EIR conclusions regarding alternatives or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

B5-72 Section E.2.4, No Project Alternative, of the EIR states that under the No Project Alternative, none of the facilities associated with the Proposed Project or alternatives evaluated in the EIR would be developed. Therefore, none of the short-term disruption impacts or long-term operational impacts as described in the EIR would occur, including Class I impacts for: (1) the potential release of natural gas and/or rupture of the proposed pipelines resulting in fire, explosion, and release of toxic substances (Section D.6 of the EIR); (2) release of gas due to failure of the cap rock, resulting in contamination of the aquifer (Section D.6 of the EIR); and (3) exceedance of the City of Sacramento's noise standard due to well drilling at the wellhead site (Section D.9 of the EIR).

Section E.3 of the EIR states that based on the analysis presented in Sections D.2 through D.13 of the EIR, the environmentally superior alternative was determined to be the No Project Alternative. Under the No Project Alternative, the proposed SNGS Facility would not be constructed. All environmental impacts associated with the construction and operation of the Proposed Project would be eliminated, and existing environmental conditions would be unaffected. The EIR further states that the No Project Alternative would not meet the goals and objectives of this project as established by SNGS, LLC.

- **B5-73** Please refer to responses B5-28 and B5-72.
- **B5-74** Please refer to response A11-3 regarding the overall mitigation monitoring and reporting plan, response A11-11 regarding the fire protection plan, and response A11-12 regarding the gas detection plan and emergency response plan.
- **B5-75** Please refer to responses A11-3 and A11-12.
- **B5-76** Please refer to responses A11-3 and A11-12.
- **B5-77** Please refer to responses B5-74, B5-75, and B5-76.
- **B5-78** Please refer to response A11-2.

Each section of the EIR lists references used in the preparation of that section, including the studies used to support the analysis and conclusions presented in the EIR. The referenced sections provide all studies used as reference and background material within the analysis of each applicable section of the EIR. All important data or material was incorporated directly into the analysis of the EIR. No additional information from the reports is relied upon for the analysis or conclusions aside from the specific discussion within the Draft EIR or what was included within the appendices. The EIR includes summarized technical data

pursuant to Section 15147 of the CEQA Guidelines, and provides sufficient material "to permit full assessment of significant environmental impacts by reviewing agencies and members of the public." Any reports associated with highly technical analysis were included for public review. Material that is not of such a nature and could be summarized in the EIR was not included in the appendices. Additional material cited in the reference section at the end of each impact category included material utilized as source documents, which can be cited to pursuant to CEQA Guidelines, Section 15148, and are not required to be included in the EIR.

- **B5-79** Please refer to response B5-78 and Document A12, a letter from the Governor's Office of Planning and Research, State Clearinghouse and Planning Unit, which acknowledges that the CPUC has complied with the State Clearinghouse review requirements for draft documents pursuant to CEQA.
- **B5-80** Please refer to response B5-78 and Document A12, a letter from the Governor's Office of Planning and Research, State Clearinghouse and Planning Unit, which acknowledges that the CPUC has complied with the State Clearinghouse review requirements for draft documents pursuant to CEQA.
- **B5-81** Section 15100 of the CEQA Guidelines requires the agency responsible for the certification of a proposed project to assess the completeness of the project proponent's application. The Energy Division of the CPUC uses the Commission's Information and Criteria List as the basic guide for determining the adequacy of project applications. After five review cycles, the Energy Division of the CPUC completed its independent review of the SNGS CPCN application (Application No 07-04-013, dated April 9, 2007) and the Proponent's Environmental Assessment (PEA). The CPUC, prior to final approval or disapproval of the application, or to supplement such information with additional information, explanation, analysis, data or studies required by the applicable information and criteria list.
- **B5-82** Section A.2 of the EIR describes the project's purpose and need and background, including a summary discussion of operations that have occurred for the Florin Gas Field. The project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines.

Section B.2, Project Description, of the EIR, subsection B.2.1, Project Location and Regional Context, provides the setting for all project components. The project, as described throughout the EIR, consists of four major components: (1) Florin Gas Field, (2) wellhead site, (3) compressor station, and (4) pipeline connection. In response to this comment, the Final EIR has been revised to correct the introductory sentence in Section B.2.1 to indicate that the project consists of four primary components. This change and addition to the EIR does not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-83** Please refer to response B5-78. All documents were either incorporated into the EIR directly, included in the appendices, or were source documents and cited as appropriate.
- **B5-84** The project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the proposed SNGS project pursuant to Section 15124 of the CEQA Guidelines.

Figures B-2 and B-3 in Section B, Project Description, of the EIR provide recent (2008) aerial images of the Proposed Project and surrounding land uses. Section D.8, Land Use, of the EIR, subsection D.8.1.1, provides a detailed discussion of existing land uses in proximity to the Proposed Project. EIR Figure D.8-2, Existing Land Uses, illustrates existing land uses in proximity to project components.

B5-85 Reservoir modeling conducted by the applicant's consultant has estimated that the maximum pressure during storage of the gas would exceed the pressures of the former gas field. This is presumably due to the injection of the natural gas and the time lag in the gas reaching the full reservoir and displacing the water in the reservoir.

The proposed gas storage project differs from a normal gas field operation in that gas is both injected and recovered during various stages of the gas storage cycle, whereas the former operation of the Florin Gas Field was a gas extraction operation. The number of wells proposed is required for the efficient injection and recovery of the stored gas and represents the maximum number of wells anticipated. It may be possible once the storage facility is in operation that the volume and extent of gas storage and recovery may not require all of the wells.

- **B5-86** Table B-1 in Section B, Project Description, of the EIR provides the surface requirements for each of the major project components; it does not evaluate project impacts.
- **B5-87** Section H, Public Participation, of the EIR provides a detailed discussion of the scoping and public participation program completed by the CPUC. As described in Section H of the EIR, in December 2007, a comprehensive scoping report was issued summarizing concerns received from the public and various agencies and presenting copies of comment letters received. Nine letters were received from public agencies and private organizations during the NOP scoping period. One letter was received after the scoping period. Commenting agencies and scoping meeting attendees were provided a copy of the scoping report. Agencies, private organizations, interested groups, and adjacent property owners were also notified via public notice that the scoping report was posted on the Proposed Project website at:

http://www.cpuc.ca.gov/environment/info/dudek/sngs/SNGS_Home.htm and available for review.

- **B5-88** In response to this comment, the Final EIR has been revised to provide further clarification regarding areas of controversy. These changes and additions to the EIR do not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-89** In response to this comment, the Final EIR has been revised to provide further clarification regarding commenters during the public scoping process. This change to the EIR does not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-90** The summary as stated is a summary of issues. Section D.8, Land Use, Agriculture, and Recreational Resources, of the EIR indicates that it is not known

at this time whether additional approvals from the Army or a franchise agreement may be required.

- Section A. Introduction and Overview, of the EIR provides the general **B5-91** background on the Florin Gas Field. Section D.6, Hazardous Material and Public Health, of the EIR, subsection D.6.1, Environmental Setting for the Proposed Project, describes the existing conditions relating to hazardous materials on the project site. As further described in Section D.6.1, the Proposed Project study area encompasses a variety of land uses, including industrial, residential, commercial businesses, educational facilities, recreation, agricultural, and open space. Existing and past land use activities are potential indicators of hazardous material storage and use. For example, many industrial sites, historic and current, are known to have soil or groundwater contamination by hazardous substances. Other hazardous materials sources include leaking underground storage tanks (LUSTs), surface runoff from contaminated sites, and migration of contaminated groundwater plumes. A number of potentially contaminated soil and/or groundwater sites have been identified within the vicinity of the wellhead and compressor station and underground project study area.
- **B5-92** As described in Section B.5, Operation and Maintenance, SNGS, LLC will be responsible for monitoring the pipeline components for the Proposed Project. Please refer to response A11-3 regarding the mitigation monitoring and compliance program.
- **B5-93** As discussed in Section F.1.1, Growth Caused by Direct and Indirect Employment of the Project, of the EIR, project operations and maintenance would require employing three new people.

In response to this comment, the Final EIR has been revised to provide further clarification in Section B, Project Description, regarding the number of employees required during operations and maintenance. This change to the EIR does not constitute significant new information or change the EIR in such a way as to deprive the public of meaningful review, or change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

B5-94 The commenter misrepresents the holding from *Endangered Habitats League v*. *County of Orange* (2005) 131 Cal.App.4th 777. That case found the EIR's biological impact standards to be too lenient and compared those standards to the standards provided under CEQA Guidelines Section 15065. However, as discussed in *Practice Under the California Environmental Quality Act* (herein "CEB"), the case does not stand for the premise that these mandatory findings of significance are therefore required to be included as specific thresholds of significance under an EIR (Kostka and Zischke 2009, Sec. 13.61).

Section 15065 of the CEQA Guidelines applies to whether or not an EIR is required. Section 15065(a) specifically states that a "lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur." The section continues to discuss those potential conditions. As discussed in Section 20.65 of the CEB, the language in this section specifically discusses part of Article 5– Preliminary Review of Projects and Conduct of Initial Study, Sections 15060 to 15065. Moreover, Article 9–Content of Environmental Impact Reports, Sections 15120 to 15132, do not discuss such a requirement.

The EIR evaluated all potentially significant impacts based upon the specific project, including an extensive evaluation of potential impacts to biological resources and related mitigation.

Lastly, the commenter attempts to tie the need for continued storage of natural gas to California's overall goals of reducing its impact on climate change. Climate change goes well beyond issues related to providing a continued source of natural gas to serve the California market. While such policy issues are available to the CPUC for consideration, this does not constitute a valid potential impact regarding the "potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals" (CEQA Guidelines, Section 15065(a)(2)).

B5-95 Please refer to response B5-87 regarding the scoping and public participation/agency consultation program completed by the CPUC. The SNGS scoping process was initiated with the publication of the Notice of Preparation (NOP) on November 16, 2007. As part of this process, the CPUC sent the NOP and a Public Notice to 62 federal, state, and local agencies; 5 Native American groups; 3 local libraries; as well as the City of Sacramento, the County of Sacramento, and Yolo County; SMAQMD and SMUD; and state and local transportation agencies. The Public Notice was also sent to a total of 767 private individuals and organizations. During the NOP comment period, the CPUC held one public scoping meeting on December 6, 2007. The CEQA scoping process allowed government agencies, public and private organizations, and the general public the opportunity to identify environmental issues and alternatives for

consideration in the EIR. The comment period for the NOP ended on December 17, 2007. In total, nine letters were received and six individuals provided comments during the scoping meeting. These comments are incorporated into the EIR project record, and are documented and summarized in the project's Scoping Report.

The scoping meeting provided the public and government agencies the opportunity to receive information on the CEQA process and SNGS, LLC's Proposed Project and to provide oral and written comments. Approximately 24 persons attended the scoping meeting, including representatives from local and state agencies, organizations, and private citizens.

In addition, public notification for the SNGS project and scoping meetings entailed a newspaper announcement, which was published in the Sacramento Bee on November 16, 2007. Concurrent with the distribution of the NOP, Public Notices regarding the project and CEQA scoping process were distributed. The NOP and project scoping report were made available on the Proposed Project website at:

http://www.cpuc.ca.gov/environment/info/dudek/sngs/SNGS_Home.htm and available for review.

Table A-1 in the EIR correctly lists the SMAQMD as having permit jurisdiction over the Proposed Project. Please also refer to responses to Document A4 from SMAQMD, dated May 21, 2009.

- **B5-96** Comment noted. Please refer to response B5-95.
- **B5-97** Comment noted. Please refer to response to Document A10 from the City of Sacramento, dated June 22, 2009.
- **B5-98** Please refer to response A11-26
- **B5-99** CEQA Guidelines Section 15124(d) states that the project description must briefly describe the intended used of the EIR and the statement must list all of the agencies expected to use the EIR in their decision making, a list of permits and other approvals required for project implementation, and a list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies. Section 15214(d)(1) also states that this list must contain this information "to the extent that the information is known to the Lead Agency." This information does not need to be discussed in particular detail.

See Native Sun/Lyon Communities v. City of Escondido (1993) 15 Cal.App.4th 892.

In response to this comment, the Final EIR has been revised to provide further clarification regarding permits required for the Proposed Project. Neither this comment nor this addition to the EIR constitutes significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or alter the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines. The CPUC will comply with all agency consulting requirements as directed by CEQA and other appropriate laws.

Please refer to response B5-87 regarding the scoping and public participation/agency consultation program completed by the CPUC for the Proposed Project.

B5-100 The Notice of Availability (NOA) widely distributed for the project clearly identified that there were two meetings to be held on April 28, 2009. The NOA explained how the public could participate in the CPUC's decision-making process through the Draft EIR public meeting, followed by the CPUC's Public Participation Hearing (PPH) on the project. It also clearly stated that at the public meeting, the EIR team and CPUC staff would be available to respond to questions and provide clarification regarding the impact analysis and conclusions presented in the EIR. Also, it stated that comment cards would be available for the public to write comments in response to the Draft EIR. The public meeting on the Draft EIR did not limit who could provide comments.

The NOA was mailed to the general distribution list of all those identified as property owners adjacent to the project alignment as well as adjacent to identified project alternatives. The NOA was also provided to the Sacramento Bee newspaper. The notice was published on April 8, 2009, the beginning of public review.

B5-101 The analysis conducted in the EIR assumes that project construction would take approximately six to nine months, as stated in Section B.4.1, Construction Schedule, of the EIR. The construction schedule shown in Table B-2 provides a breakdown by project phase. The total six- to nine-month construction schedule assumes that some phases would be initiated simultaneously, resulting in overlapping construction periods.

- **B5-102** Sufficient information regarding construction equipment has been provided in order to evaluate construction and operational impacts. Please refer to responses to Document A4, in response to a letter from the Sacramento Metropolitan Air Quality Management District (SMAQMD), dated May 21, 2009.
- **B5-103** Please refer to response B5-102. The SMAQMD did not raise issue with the level of detail regarding construction equipment in its comments on the EIR.
- **B5-104** Section D.6, Hazardous Materials, Public Health and Safety of the EIR, subsection D.6.3.3 under Impact HAZ-1b, evaluates potential hazards associated with the generation and disposal of drilling mud and cuttings. It will be up to the drilling contractors to choose the approved facility for disposal. The drilling mud for well drilling and for horizontal directional drilling (HDD) will be non-toxic but could become contaminated from encountering groundwater or other sources. Therefore, the facility where disposal will occur will depend upon any contamination of the drilling mud.
- **B5-105** As described in Section B.4.4, Staging Areas, of the EIR, the analysis in the EIR assumes that staging areas for construction will take place on the proposed wellhead site, compressor station site, and along the pipeline corridor. No additional staging areas are proposed.
- **B5-106** Please refer to responses A6-3 and B5-265. Section D.12, Transportation and Traffic, of the EIR provides further details regarding construction traffic and related project impacts. In addition, this EIR section includes Mitigation Measure T-2 that requires scheduling of delivery and construction-related traffic to avoid travel during peak periods of traffic on surrounding roadways. The anticipated construction-related traffic would create a short-term and limited impact (Class II) on traffic volumes and may change traffic patterns such as to affect the LOS or volume-to-capacity ratio on the study area roadways. Mitigation Measure T-2 and Applicant Proposed Measure (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.
- **B5-107** As discussed in Section B of the EIR, pipeline trenches would be backfilled using select excavated subsoils found to contain no hazardous constituents. It is likely that some excavated soil would require disposal at an appropriate off-site hazardous waste disposal facility (a facility licensed to handle and dispose of hazardous wastes). The quantity of soil (and drilling mud) requiring disposal is not yet known due to unknown levels of hazardous constituents presently in the soil; therefore, the anticipated number of haul-truck trips is unknown. Pursuant to

the City of Sacramento General Plan 2030, Goal PHS 3.12.4, the City of Sacramento restricts the transportation of hazardous materials within city limits to designated routes. These routes are not specified in the General Plan but would presumably be identified by the City prior to the approval of the Traffic Control Plan proposed by the project.

B5-108 The EIR analysis assumes as stated that the typical easement required to construct the proposed pipelines would be 70 feet wide. As stated in the EIR in Section B.4.2.4, the easement required would be less in some areas that have been flagged to avoid sensitive resources. Figure B-3 of the EIR illustrates the proposed connecting pipelines.

With regard to staging areas, please refer to response B5-105.

- **B5-109** Section D.7, Hydrology and Water Quality, of the EIR evaluates impacts due to potentially encountering groundwater during pipeline construction and acknowledges that groundwater could be encountered during trenching and proposed HDD construction activities. Water from dewatering will be treated in a portable filtering device used for such purposes.
- **B5-110** As discussed in Section D.10, Population and Housing, of the EIR, according to the 2000 U.S. Census (most recent census available), the six census tracts within 0.50 mile of the Florin Gas Field had a total workforce of 11,984, and of those, 7% were involved in the construction industry. Within the tracts within the project area were a total of 1,338 unemployed persons with an unemployment rate for the six-tract area of 11%. The EIR analysis assumes that SNGS, LLC would employ approximately 150 to 200 workers throughout the maximum anticipated 9-month construction period.

It is anticipated that approximately 70% of workers (105 to 140 employees) would come from the Sacramento area. This assumption is reasonable given the current economic recession and available labor force in the project area.

B5-111 Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines. Please refer to responses A10-4 through A10-14.

The comment does not indicate the "additional undisclosed pipelines" for which the air quality impacts should have been evaluated.

Refer to response A11-23 regarding the use of natural gas provided by the Proposed Project and the impacts associated with downstream users. The analysis conducted in the EIR assumes that there would not be any substantial changes to the operation and maintenance of SMUD natural gas pipelines as a result of the project.

Nonetheless, the land use designation for the compressor station site under the City of Sacramento 2030 General Plan remains "industrial," and the air quality assessment would be unaffected by the updated General Plan.

This comment introduces a series of comments regarding the air quality analysis. The comment is noted, and the responses to specific comments are provided in the following responses.

- **B5-112** The statement in the EIR regarding the project area was related to the compressor station site—the primary source of operational emissions—which is located primarily in the City of Sacramento. The description indicated by the commenter refers to the Florin Gas Field only. The precise percentages of the project site within the city and county have no bearing on the air quality assessment as all of the emissions would occur within the Sacramento Valley Air Basin (SVAB) and are evaluated in comparison to the SMAQMD's recommended significance thresholds. However, to avoid confusion, the statement has been revised to match the description in Section A.2 of the EIR more closely. Nonetheless, the description in question is in a section regarding regional climate in the SVAB. This addition to the EIR does not change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-113** The text referenced by the commenter is a restatement from SMAQMD's *Guide to Air Quality Assessment in Sacramento County* (SMAQMD Guide) generally discussing potential conflicts between certain types of projects and nearby sensitive receptors. Furthermore, this text is intended for lead agencies to recognize such conflict may occur, but it does not necessarily mandate that such potentially incompatible uses cannot be located near each other. That is, it is not an SMAQMD "standard." The text is not shown in either the SMAQMD Guide nor the EIR as a significance threshold. The actual significance threshold from the

SMAQMD Guide related to sensitive receptors is listed in Section D.2 of the EIR. Also, natural gas is a hazardous material due to its flammability, not its toxicity, although it is classified as a simple asphyxiate, possessing an inhalation hazard. Accordingly, its potential environmental impacts are addressed in Section D.6 (Hazardous Materials, Public Health and Safety) rather than Section D.2 (Air Quality) of the EIR. The potential for accidental releases of natural gas and related impacts was addressed adequately in Section D.6 of the EIR.

B5-114 The commenter is confusing two different analyses of air quality impacts. In the first analysis, the project's operational impacts were estimated assuming that the project site (e.g., the compressor station) is zoned for industrial use, but undeveloped. That is, the operational emissions are compared to a zero baseline and then compared to the SMAQMD's emissions-based significance thresholds. The text and a table related to the operational emissions analysis were inadvertently removed from the Draft EIR. They have been added to the Final EIR, and now include emissions from a natural gas-fired emergency generator (see response B5-313 for more information regarding this generator). The operational emissions, however, were also shown in Table D.2-11. The operational emissions would be well below the SMAQMD significance thresholds shown in Table D.2-6. This addition to the EIR does not change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines. Similarly, the construction emissions have been evaluated, as recommended in the SMAQMD Guide, relative to the NO_x emissions-based significance threshold and other thresholds (e.g., PM₁₀ screening method). The second analysis, which compares the project's operational emissions to those that could occur under the current land use designation, addresses the potential cumulative air quality impacts and conflicts with the air quality plan (see discussion of Impacts A-1 and A-3 in Section D.2 of the EIR). The SMAQMD Guide recommends this type of analysis.

The comment is related to Impact A-1, which evaluates only whether the Proposed Project would conflict with or obstruct implementation of the applicable air quality plan. The comment is taken out of context. The EIR contains further discussion as to why the project's construction emissions would not conflict with or obstruct implementation of the air quality plan. Furthermore, this discussion is not the sole assessment of the project's construction emissions. The project's construction emissions are also discussed with respect to other significance thresholds. For example, the EIR found that the project's NO_x emissions during

construction would be significant (i.e., greater than 85 pounds per day), and the EIR includes mitigation measures to reduce this impact to less than significant.

- **B5-115** The National Emission Standards for Hazardous Air Pollutants (NESHAP) for natural gas transmission and storage facilities applies to *major* sources of hazardous air pollutants (HAPs). A major source of HAPs is defined as one that has the potential to emit more than 10 tons per year of an individual HAP or 25 tons per vear of total HAPs from all sources at the facility. Based on the estimated HAP emissions shown in the health risk assessment, the total HAP emissions from the glycol dehydration process would be approximately 5.3 tons per year. While there would be other sources of HAPs at the compressor station (e.g., emergency generator), their HAP emissions would be small, and the facility's HAP emissions are not anticipated to exceed the major source thresholds. Therefore, the proposed storage facility would not be a major source, and the NESHAP would not apply, regardless of the amount of natural gas to be processed daily. In response to this comment, Section D.2.2.4 and Impact A-6 have been modified in the Final EIR to clarify the applicability of the NESHAP to the Proposed Project. These changes to the EIR do not change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-116** We do not agree with the commenter that the phrase "any air quality standard" in the Appendix G criteria means "any air quality rule or regulation." In the context of this criterion, air quality standard means ambient air quality standard; that is, would a project cause a violation or contribute substantially to existing violations of an ambient air quality standard? Nonetheless, Impact A-6, which is based on SMAQMD thresholds, does relate to compliance with applicable SMAQMD, state, and federal air quality rules and regulations. The EIR does not simply "assert" that the SMAQMD cannot issue an Authority to Construct and Permit to Operate for the proposed stationary sources (all of the Proposed Project will not require these permits) unless SNGS, LLC has demonstrated compliance. Section 303.1 of SMAQMD Rule 201 states that the Air Pollution Control Officer (APCO) shall deny an Authority to Construct or Permit to Operate if the applicant cannot demonstrate compliance with SMAQMD rules and state and federal statutes enforced by the APCO.

As discussed above, the applicant must obtain an Authority to Construct from the SMAQMD. This permit process is subjective, particularly with respect to what is considered Best Available Control Technology (BACT). Thus, an applicant's

proposal may be revised by the SMAQMD during the evaluation process. In addition, all specifications of the proposed equipment are not available at the CEQA review stage. Accordingly, a detailed compliance review of the applicant's proposed equipment cannot be conducted at this time. In light of the rigorous SMAQMD permit review process, including a compliance demonstration, there is no reason to expect that the process equipment, as permitted by SMAQMD, would not comply with all applicable rules and regulations. Please see response B5-115 regarding the applicability of the NESHAP. Moreover, SMAQMD did not raise any issues about the adequacy of the analysis for Impact A-6 in its comment letter other than to reiterate that "all projects are subject to SMAQMD rules and regulations in effect at the time of construction" and provide a list of potentially applicable rules.

Lastly, a less-than-significant determination for Impact A-6 does not imply that *all* air quality impacts resulting from the Proposed Project would be less than significant as the comment implies. For example, the NO_x emissions during the construction phase were found to be significant even if the applicant uses compliant construction equipment and motor vehicles.

B5-117 The SMAQMD established the mitigation fee with the intent of funding off-site emission reduction projects. The SMAQMD maintains that an adequate nexus exists between the mitigation fee and emission reductions that would reduce a project's NO_x construction emissions to less than significant. Specifically, the SMAQMD has responded to this question in its CEQA Frequently Asked Questions (SMAQMD 2008:http://airquality.org/ceqa/CEQAFAQ.pdf):

 NO_x is a precursor to regional ozone formation and also contributes to particulate matter levels as an aerosol formed in the atmosphere. High ozone levels can occur at great distances from where NO_x was originally emitted and is generally a summertime problem. Particulate matter levels are highest in wintertime. Mitigation fees, therefore, are used on projects anywhere within the ozone non-attainment area that meet the cost effectiveness criteria used to determine the fee. Most mitigation fees are related to construction impacts, and those fees are used by SMAQMD to reduce emissions from construction equipment. Examples include repowering off-road construction equipment with newer engines that meet more stringent emission standards, retrofitting diesel engines with control devices, providing incentives for the use of lower-emission fuels, and other cost-effective strategies. The mitigation fee is intended to reduce NO_x emissions to a less-than-significant level and not to fully mitigate the emissions to zero. Based on the estimated construction emissions, daily NO_x emissions would exceed the SMAQMD significance threshold of 85 pounds per day during weeks 16 and 17 only. Accordingly, the mitigation fee would be applied to the excess emissions during that period. The actual fee will be determined by SMAQMD prior to issuance of building permits for the project. Please also refer to response A4-1 regarding payment of the mitigation fee.

- **B5-118** Enforcement of the idling restriction in APM 3(e) is described under the "Monitoring Requirements and Effectiveness Criteria" column in Table G-1, Mitigation Monitoring Program. Specifically, SNGS, LLC must "ensure that all construction workers are aware of the vehicle idling restriction by explanation of this requirement in the Worker Training Program." Furthermore, as described in Table G-1, the CPUC will "inspect periodically for idling equipment not required for use immediately or continuously." Idling of in-use off-road equipment and commercial heavy-duty trucks is also restricted by Airborne Toxics Control Air Measures adopted bv the California Resources Board (see http://www.arb.ca.gov/enf/advs/advs377.pdf 2008) (CARB and http://www.arb.ca.gov/msprog/truck-idling/2485.pdf (CARB 2009) for equipment and trucks, respectively). Thus, there will be adequate enforcement of this mitigation measure. Inclusion of the idling restriction was not needed to reduce the Proposed Project's NO_x emissions during construction to less than significant because the NO_x mitigation fee would provide sufficient mitigation. Please see response B5-117 regarding the mitigation fee and response A11-3 regarding the Mitigation Monitoring, Compliance, and Reporting Plan (MMCRP).
- **B5-119** The 75-kilowatt emergency generator was not proposed by the applicant. Rather, it was included as a mitigation measure to ensure that the compressor station would have adequate electrical power for key components in the event of an electrical outage. Mitigation measure HAZ-2b*i* has been revised in the Final EIR to require the installation of a natural gas-fuel emergency generator, which will avoid the health impacts of diesel particulate matter emissions from this device. These changes to the EIR do not change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

See response B5-313 regarding Dr. Greenberg's comment and for additional discussion about the emergency generator and its air quality impacts.

- **B5-120** Implementation of identified mitigation measures are expected to have de minimis impacts to air quality and other impacts. Monitoring wells will be constructed concurrently with well drilling activities. Monitoring wells will either be constructed at the well site or at other locations using small, low-polluting equipment.
- **B5-121** Section D.6 of the EIR discusses the public health and safety impacts associated with the transport of methyl mercaptan. Because of the proximity to sensitive receptors, the EIR concludes that the impacts associated with hazardous materials delivery is significant and includes mitigation measures to reduce these impacts to less than significant.
- **B5-122** See response B5-113 regarding the discussion of potential conflicts with sensitive land uses. The location of the wellhead site, adjacent to Power Inn Road, is within the City of Sacramento. Accordingly, the County of Sacramento zoning code would not apply. The Sacramento City Code does not contain a similar restriction regarding the separation distance of oil and gas wells from residential uses however, a special permit from the City of Sacramento will be required for the Proposed Project. Also, as stated in response B5-113, the discussion in Section D.2.1.3 is not intended to serve as a significance threshold. Accordingly, there is no other air quality assessment of the presence of well sites or pipelines in proximity to sensitive land uses.
- **B5-123** In addition to the health risk assessment, which evaluates the potential impact of toxic air contaminants on sensitive receptors, the EIR evaluates the potential for the project's stationary source criteria pollutant emissions to cause or contribute substantially to violations of ambient air quality standards. The ambient air quality standards are health-based standards and are intended to protect sensitive individuals from adverse health impacts. The SMAQMD Guide provides a screening level approach for the evaluation of these pollutants. If a project's stationary source emissions are less than the screening level thresholds for NO_x, carbon monoxide (CO), and PM₁₀, then the project would not be likely to cause or contribute substantially to a violation of the respective ambient air quality standard. The results of this analysis are shown in Table D.2-9. All of the stationary source emissions were well below the screening level thresholds. However, with the inclusion of a 100-kilowatt natural gas-fired emergency generator, the compressor station's NO_x emissions would exceed the screening level threshold. Table D.2-9 has been revised in the Final EIR. Accordingly, additional analysis of the NO_x emissions and impacts to local nitrogen dioxide (NO₂) concentrations have been included in the EIR. The impacts were found to

be less than significant (i.e., the NO_x emissions from the compressor station's stationary sources would not cause a violation of the California Ambient Air Quality Standards (CAAQS) for NO_2). These changes to the EIR do not change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-124** The SMAQMD Guide appears to be inconsistent as to the relevant threshold for the health impact of carcinogenic toxic air contaminants (TACs). However, in Section 2.6.4 of the SMAQMD Guide, which discusses significance thresholds for toxic air contaminants, the threshold is stated as "lifetime probability of contracting cancer is greater than 10 in one million." J.J. Hurley of the SMAQMD staff confirmed that the 10 in one million threshold is correct (Hurley, pers. comm.. 2009). Due to the 100-kilowatt emergency generator, additional analysis has been performed for its TAC emissions. See response B5-313 for additional discussion. The analysis found that the health impacts would remain less than significant, as stated in the EIR. These changes and additions to the EIR do not change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- B5-125 Natural gas itself is not considered a TAC. Thus, an assessment of natural gas leaks from other sources, such as the wellhead or pipelines, is not warranted. The potential non-air quality hazards associated with leaks are discussed in Section D.6 (Hazardous Materials, Public Health and Safety) of the EIR.
- **B5-126** The intent of discussion of Proposed Rule 461 was simply additional information about a measure that *could* provide additional assurances regarding potential leaks from the compressor station. At the time Section D.2 of the Draft EIR was initially prepared, SMAQMD was considering the development of Rule 461 but such action has been postponed. However, it may be adopted in the next two years according to Aleta Kennard of the SMAQMD. It was not intended to imply that this rule will reduce potential leaks and related odors to less than significant. To clarify the discussion of Rule 461, the text of Impact A-5 in the Final EIR has been modified. These changes to the EIR do not change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

Odors resulting from gas leaks are not a routine occurrence that would impact a substantial number of persons on a regular or continuous basis. The CEQA

significance threshold is intended to result in an evaluation of a new facility (e.g., wastewater treatment plant, animal rendering plant, confined animal facility) that would routinely cause odors that could conflict with adjacent uses, such as residential development. 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 the area. As a result, odors associated with methyl mercaptan should not be considered an adverse impact. Furthermore, CPUC Rule 112-E, Subpart B, will require that the applicant submit gas incident reports to the CPUC in the event of gas leaks that result in death or property damage or "incidents which have either attracted public attention or have been given significant news media coverage, that are suspected to involve natural gas, which occur in the vicinity of the operator's facilities." Additional description of leak monitoring, response, and reporting is found in Section B.5 of the EIR. It should also be noted that SMAQMD Rule 402 (Nuisance) prohibits emissions that could cause a nuisance, including odors. In the event that odors reached an offsite receptor and cause an annovance to the receptor, the SMAQMD could be called to report this occurrence.

B5-127 While a lack of regulation is not dispositive that an impact may not be significant, "the absence of regulation is, however, a factor that can reasonably be considered in the EIR process." *Laurel Height Improvement Association of San Francisco, Inc.* v. *Regents of the University of California* (1988) 47 Cal.3d 376, 412. Moreover, the EIR did not claim that PM_{2.5} impacts would be less than significant due to the absence of federal, state, or local air quality standards.

The 2004 edition of the SMAQMD Guide did not include a threshold of significance for particulate matter less than 2.5 microns ($PM_{2.5}$) or recommend a method for addressing a project's $PM_{2.5}$ emissions. Nonetheless, the EIR found that the Proposed Project's PM_{10} , VOC, and NO_x emissions from construction and operation would be less than significant. $PM_{2.5}$ is a subset of PM_{10} , and VOCs and NO_x are precursors to $PM_{2.5}$ in the form of aerosols and nitrates. Furthermore, the Draft EIR includes APMs, which were in turn incorporated into the Mitigation Monitoring, Compliance, and Reporting Program that would mitigate the Proposed Project's $PM_{2.5}$ emissions. Specifically, APMs 3(a) and 3(c) will reduce the PM_{10} and $PM_{2.5}$ emissions associated with the exhaust from construction equipment. APM 3(f) will reduce the PM_{10} and $PM_{2.5}$ emissions during construction were found to be less than significant. While the NO_x emissions during construction were found to be less than significant, mitigation measures were imposed to reduce the NO_x emissions to a

less-than-significant level. Although the 2004 edition of the SMAQMD Guide does not address $PM_{2.5}$, the proposed revised 2009 edition of the SMAQMD Guide states:

Because $PM_{2.5}$ is a subset of PM_{10} , the District assumes that construction projects that do not generate concentrations of PM10 that exceed the District's concentration-based threshold of significance would also be considered less-than-significant for $PM_{2.5}$ impacts.

The operational emissions from the Proposed Project would consist primarily of emissions from natural gas-fired equipment and employee vehicles, both of which have negligible emissions of PM_{10} and $PM_{2.5}$. The operational VOC and NO_x emissions ($PM_{2.5}$ precursors) were found to be less than significant.

Please refer to response B5-313 regarding Dr. Greenberg's comments.

- **B5-128** The analysis conducted in the EIR assumes that there would not be any substantial changes to the operation and maintenance of SMUD's electrical generating power plants or other downstream users of natural gas as a result of the project. The CPUC acknowledges that should the project result in substantial changes to the operation and maintenance of SMUD's facilities or other users of natural gas stored by the project that could result in environmental effects, subsequent environmental documentation and review will be required.
- **B5-129** Section D.10.3.3 of the EIR states, "a strong labor force (37,223 people in the construction industry in Sacramento County) exists within a one- to two-hour commute of the project." It does not say where the construction workers would come from. While some workers may travel farther distances, it is expected that 70% of the labor force would come from the Sacramento area, which would generally result in travel times less than one hour. The remaining 30% of the workers, who would be hired from outside the area for specialized construction techniques, would be expected to find temporary housing (e.g., motel, hotel, apartment) in the greater Sacramento area during the construction period. It would be speculative at this time to determine where the construction workers would reside. In the absence of better information, the construction workers' trip length was based on the URBEMIS2007 default trip length of 10.8 miles for commute trips for projects in Sacramento County. Use of URBEMIS2007 to estimate motor vehicle emissions associated with proposed projects is accepted by the SMAQMD.

While the project would require up to 200 workers, all of the workers would not be present in one location or affect the same roadways and intersections. For example, up to 30 workers would be associated with construction of the wellhead site, up to 40 workers with construction of the compressor station, and up to 20 workers with construction of the pipeline. The EIR concludes that only construction of the pipeline would result in significant traffic impacts due to road or land closures. Mitigation measures are included that would reduce the traffic impacts to less than significant. Furthermore, recent CO concentrations in the project vicinity are less than 50% of the 1-hour and 8-hour CAAQS, and the sulfur dioxide (SO₂) concentrations are less than 10% of the 24-hour California and annual National Ambient Air Quality Standards (NAAQS). Accordingly, it is still concluded that the Proposed Project would result in a less-than-significant impact for CO and SO₂.

B5-130 SNGS, LLC proposes to use a JATCO BTEX Eliminator to control emissions from the glycol dehydrator still. The still is the typical source of hazardous air pollutants (HAPs), including benzene, toluene, ethyl benzene, and xylenes (collectively referred to as BTEX); other volatile organic compounds (VOCs); and methane. The BTEX Eliminator is a natural-air-cooled heat exchanger condensing system. Condensed liquids will be collected in the skid-mounted JATCO tank and automatically transferred to storage for off-site disposal. The residual non-condensable vapors (i.e., VOCs and methane) will be sent to the reboiler main burner. Because these vapors would be similar in composition to natural gas (i.e., primarily methane with other VOCs) and would replace some of the gas that fuels the reboiler, the unburned methane emissions are accounted for in the greenhouse gas calculations provided in Table D.2-15 of the EIR. These methane emissions were estimated to be approximately 1 metric ton CO₂E per year of the 491 metric tons CO₂E of total greenhouse gases from the reboiler.

At this time, sufficient detail regarding the Proposed Project's equipment and processes is not available to evaluate the applicable Best Management Practices (BMPs). The participants in the EPA Natural Gas STAR program benefit from the experience of a wide range of operators and facilities. However, all BMPs developed by the program participants may not be applicable to the Proposed Project. Many of them would apply as retrofits to older facilities that were not built using current technology. Thus, the mitigation measure requires that SNGS, LLC participate in the program and develop an appropriate implementation plan for its operation. The plan, as well as an annual report documenting the results of the emission-reduction activities, must be submitted to the CPUC for review. Because the assessment of the Proposed Project's impact on global climate change

was qualitative rather than a quantitative comparison to a numerical threshold, the effectiveness of the BMPs would not be sufficient to demonstrate a less-than-significant impact.

- **B5-131** The global warming potentials (GWP) of greenhouse gases are reported as different values by various agencies. The 100-year GWP for methane has been reported as 21 and 23, depending on the source. A GWP value of 21 for methane was selected because it is consistent with the California Climate Action Registry's *General Reporting Protocol*, which was used for some of the greenhouse gas emission calculations. It is also the required value to be used for reporting of greenhouse gas emissions under the California Air Resources Board's (CARB's) mandatory reporting regulation. Because methane from combustion sources is generally a very small contributor relative to carbon dioxide (CO₂) on a mass basis (the CO₂ equivalent emissions, which accounts for the different GWP of greenhouse gas emissions reported in the EIR.
- **B5-132** See response A4-2.
- **B5-133** See response A4-2.
- **B5-134** Global climate change is acknowledged as a cumulative impact resulting from the world's emissions of greenhouse gases. Thus, there is no need to total the emissions of "related past, present, and reasonably foreseeable probable future projects" as a test to determine if an individual project's less-than-significant impact would otherwise contribute to a cumulative impact. Furthermore, in the absence of an adopted numerical threshold, totaling emissions from other California gas storage projects, as suggested by the commenter, would not serve any purpose to determine whether a cumulative impact would occur. The test under CEQA, then, is whether a project would result in a cumulatively considerable contribution to a cumulative impact. That test has been applied, and the CPUC has determined that mitigation measures should be adopted to reduce the project's greenhouse gas emissions.
- **B5-135** The comment suggests that a comparison of the Proposed Project's emissions to statewide emissions is "improper" and that the Proposed Project's emissions should be compared to the emissions generated in the City of Sacramento or the region. There is no guidance that specifies what a valid comparison should be. In fact, the comparison of the Proposed Project's emissions to statewide emissions was for informational purposes only. It was not used to draw a conclusion. Furthermore, given that the lead agency, the CPUC, has statewide responsibility,

a regional comparison may have been too limited. Nonetheless, in the interest of full disclosure, the Final EIR will include a comparison of the Proposed Project's emissions to the City of Sacramento's and County of Sacramento's estimated greenhouse gas emissions based on their recently prepared 2005 emission inventories. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-136** As stated in response A11-28, the purpose of the Proposed Project is to provide a reliable backup supply of natural gas for SMUD. It does not expand the capacity of the Sacramento area to use and consume natural gas or hamper the state's long-term goals for reducing greenhouse gas emissions.
- **B5-137** While the comment does not define "life-cycle emissions," such emissions are generally considered to be those associated with manufacturing and transport of construction materials. The source (manufacturer and/or supplier) of construction materials and the emissions associated with manufacturing of these materials would generally be speculative at the CEQA-analysis level. However, to the extent that the alternatives assessed in the EIR are alternative gas field locations or gas pipeline routes, certain aspects of the Proposed Project, such as the wellhead components, gas field wells, and the compressor station, would involve the same construction materials. The EIR compares the alternatives that involve shorter pipelines would produce less direct construction emissions and use fewer construction materials. It is also important to note that neither the CPUC nor the applicant has direct control over the manufacturers or suppliers of construction materials.

See response B5--128 regarding the use of natural gas provided by the Proposed Project and the impacts associated with downstream users. The Proposed Project would not result in any change in greenhouse emissions resulting from existing combustion of natural gas by SMUD or other downstream users.

B5-138 See response B5-130 regarding methane emissions from the glycol dehydration unit. The contribution of greenhouse gases from the Proposed Project (approximately 2,500 metric tons per year) is 0.0006% of the estimated greenhouse gases produced in California in 2004. That is not to suggest, however, that this contribution is not cumulatively considerable for CEQA purposes. This characterization of the Proposed Project's greenhouse gas emissions did not lead to a conclusion that the impact would be less than significant. As indicated in response B5-135, the Proposed Project's greenhouse gas emissions have also been compared to the emissions produced within the City of Sacramento and County of Sacramento. To avoid confusion, the statement that the Proposed Project's emissions are "minor" relative to the state's emissions has been deleted in the Final EIR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

As noted in the EIR, the CPUC believes that the greenhouse gas emissions from the Proposed Project should be mitigated and has proposed appropriate mitigation measures.

B5-139 Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines.

Please refer to responses A10-4 through A10-14.

The proposed project will be in operation for a number of years. It is anticipated that the wells will be plugged and abandoned, pipelines cleaned and abandoned in place and surface facilities removed. No significant biological impacts will occur.

- **B5-140** The EIR adequately addresses the biological impacts that will occur from the Proposed Project. The project area is highly urbanized and contains few biological resources. No impacts to biological resources will occur associated with water quality impacts since the aquifer is well below ground surface. Drilling of monitoring wells will be minimally ground disturbing and will occur in urbanized areas not containing native biological resources.
- **B5-141** Although not specifically mentioned in the significance criteria, the impacts to the range of threatened and endangered species were considered in the impact analysis. In each case, the impacts to species potentially occurring were considered significant, and appropriate mitigation measures were identified.

The EIR did address the impacts to local ordinances both in D.3, Biological Resources, and in D.8, Land Use, Agriculture, and Recreational Resources. EIR Section D.3 of the Final EIR has been modified to describe these ordinances more clearly. No significant impacts will occur.

This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-142** The South Sacramento County Habitat Conservation Plan (HCP) has not been adopted. Although there is a portion of the reservoir in County territory, most of the area will not be disturbed by the Proposed Project since the facilities are located within the City of Sacramento. No impact will occur. This impact has been presented as Impact B-6 in the EIR.
- **B5-143** Section D.3.1.5 of the EIR does discuss the impacts of the Proposed Project to fairy shrimp in general, including the tadpole shrimp. There are two processes for determining significance based on applicant preference: one is to conduct protocol surveys, and the other is to assume presence and mitigate accordingly. The U.S. Army Corps of Engineers (ACOE) and the U.S. Fish and Wildlife Service (USFWS) have developed compensation and mitigation measures to mitigate potential impacts to these species. The applicant will avoid impacts to these potential habitats where feasible through either moving pipelines or facilities to avoid this impact or through the use of HDD.
- **B5-144** Refer to response B5-143.
- **B5-145** Mitigation Measure B-1c has been revised in the Final EIR to address this concern. After construction, the USFWS and 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. It should be noted that the potential habitat for giant garter snake is expected to be avoided by the use of HDD.

This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

B5-146 Mitigation Measure B-1e has been modified in response to this comment. It should be noted that the area is marginal habitat for the Swainson's hawk due to the area's urban character.

This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-147** Mitigation measures for the wetlands will ultimately be the responsibility of the ACOE, USFWS, and the Regional Water Quality Control Board (RWQCB). These agencies will determine the ratio for mitigation. The applicant will avoid the wetlands to the extent possible through rerouting pipelines or HDD, but it is likely some wetlands will be lost.
- **B5-148** Mitigation Measure B-3b has been modified to provide additional detail on the clean-up process.

This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-149** The cumulative analysis is considered adequate and does not require further analysis of impacts to biological resources. Because of the urban nature of the project, there are few other projects in the cumulative baseline, and these projects are not expected to impact biological resources. The Proposed Project has mitigated impact to less-than-significant levels.
- **B5-150** Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines.

Please refer to response B5-111 regarding adequacy of the project description presented in the EIR and response A10-4 regarding the use of the 1988 General Plan. For purposes of the analysis conducted in the EIR, it was assumed that facilities required to develop the project were fully identified in the project description, and that they would be placed as to avoid sensitive cultural resources. Activities for ongoing maintenance and end of project life were assumed to be in the same physical location as the proposed undertaking, which was included in the analysis and definition of impacts in Impact C-3. Reasonably foreseeable future maintenance operations would take place within the project footprint and connecting pipeline segments right-of-way, and no impacts to cultural resources would occur.

The City of Sacramento's 2030 General Plan was adopted on March 9, 2009, immediately prior to the completion of the Draft EIR. The Draft EIR analysis is

consistent with the stated goals adopted in the Historic and Cultural Resources element (HCR 1.1 through HCR 3.2) of the 2030 General Plan in relation to archaeological sites and historic structures (City of Sacramento 2009). The EIR and supporting technical studies are consistent with the identification, consultation, and applicable laws and regulations identified in the 2030 General Plan.

B5-151 Impact G-9 in Section D.5 of the EIR in Section D.5, Geology and Soils, addresses project impacts on paleontological resources. Mitigation Measure G-9 provides mitigation for impacts on unique geologic or paleontological resources.

Regarding the disturbance of human remains, there is no indication that any area within the study area has been used for burial purposes in the recent or distant past. Thus, it is unlikely that human remains would be encountered during project construction. However, in the event of the discovery of any human remains during project construction, including those interred outside of formal cemeteries, Mitigation Measure C-2b is provided in the EIR (Section D.4).

B5-152 None of the 15 resources identified in the EIR in Section D.4.1.5 are located within or immediately adjacent to the areas of direct impact of the project study area. All of these resources are historic structures with defined physical extents. The one resource that was determined eligible for listing in the California Register of Historic Places, CA-SAC-556H, located at 8196 14th Avenue, Sacramento, was incorrectly identified as retaining much of its integrity; the structure has been destroyed and no longer exists.

The previously identified historic resources are adequately described in Section D.4.1.5 of the EIR, which lists their nature and refers to their determination status.

Three unevaluated resources identified in the EIR are existing rail corridors that are subject to ongoing use and maintenance, and none of these rail corridors would be impacted by the project elements.

All of the buildings identified (except CA-SAC-556H, described above) in the EIR were previously evaluated for the Historical Property Survey of the Sacramento Army Depot Redevelopment Plan EIR and were determined as not eligible for listing to the California Register of Historic Places by Maniery and Kelly (1995), as stated in the EIR in Table D.4-1. The Register of Professional Archaeologists currently certifies Mary Maniery in historical archaeology and field research and also meets Secretary of Interior Professional Standards as an historian, architectural historian, and historical archaeologist. Analysis of these

structures was consistent with the significance criteria defined in the National and California Register of Historic Places. It is highly unlikely that any of these structures would be determined eligible if re-evaluated, and since these structures are all located a substantial distance from the project's areas of direct impact, none would be subject to an adverse change by materially altering any of their potentially historic characteristics.

- **B5-153** Please refer to response B5-154. The comment is noted and will be included in the project record and considered by the CPUC during project deliberation.
- **B5-154** As described in the EIR, there are no known unique archaeological resources within the project area. The cultural resources technical study for the project cited in the EIR, prepared by an archaeologist who meets the Secretary of Interior's standards, states that the potential for undiscovered prehistoric deposits is moderate, and that the potential for undiscovered historic archaeological deposits is low. No "high-probability areas" or "environmentally sensitive areas" were identified or mapped within the technical study or EIR. Reference to "high-sensitivity areas" are, therefore, struck from the Final EIR in Section D.4 in response to this comment. There is no prescription within the EIR to avoid areas of moderate sensitivity for the discovery of unknown buried archaeological resources. The procedures outlined in Mitigation Measures C-2a and C-2b are applied equally and uniformly throughout the entire project area, regardless of archaeological sensitivity.

There is always the potential for the discovery of unknown, buried cultural resources anywhere on any project that contains undisturbed soils. Therefore, the discussion in Impact C-2 and Mitigation Measures C-2a and C-2b are intended to mitigate any possible future discovery of a buried resource to a less-than-significant level. In response to this comment, the discussion in Impact C-2 has been slightly modified and Mitigation Measure C-2a has been modified to include an additional performance standard in Section D.4 in the Final EIR.

These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

B5-155 The structures and setting of the Sacramento Army Depot were evaluated as part of the Base Realignment and Closure process. The ACOE evaluated all of the structures on the former Army Depot in 1993 and found that none were eligible for inclusion on the National or California Register of Historic Places. The Office of Historic Preservation concurred with this evaluation in 1993.

The compressor station and parts of the pipeline sections within the former Army Depot are proposed to be located between a rail spur and Building 601 (former Skill Development Center) that was constructed between 1962 and 1968 (ACOE 1993). There are some former Army structures that were constructed within the 1946 to 1958 period in the general vicinity of the proposed compressor station; however, none of these structures would be directly or indirectly impacted by the project. No modifications or changes are proposed to any of the structures on the former Army Depot. The former Army Depot is now an operating business park, and many of the buildings have been modified for other purposes since the closure of the base.

While it is true that portions of the Proposed Project lie within the open space areas within the former Army Depot, there are no structures that are within the study area. Since the structures of the former Army Depot are outside of the areas of impact for the Proposed Project, and all of these structures are to be avoided, it is not necessary for the EIR to re-evaluate the potential historic eligibility of the former base structures that lie outside of the project's area of potential effect.

B5-156 No structures are to be impacted by this project and all structures will be avoided. There are no anticipated impacts to any historic resources identified in the EIR. Mitigation Measure C-2b is meant to address impacts to any buried archaeological resource that that may have the potential to qualify as a "unique archaeological resource" as defined by CEQA. In response to this comment, the text of Mitigation Measure C-2b has been modified in the Final EIR.

These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-157** Activities for ongoing maintenance are reasonably assumed to be in the same physical location as the proposed undertaking, which was included in the analysis and definition of impacts in Impact C-3. Reasonably foreseeable future maintenance operations would take place within the project footprint and connecting pipeline segments right-of-way, and no impacts to cultural resources would occur.
- **B5-158** This comment is noted. The time periods listed in Mitigation Measure C-2b are inconsistent with Public Resource Code 5098. In response to this comment, the language in Mitigation Measure C-2b has been modified to allow proper notification of a most likely descendant. Please refer to response B5-156.

These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

B5-159 CEQA does not require that mediation between a landowner and the Native American Heritage Commission (NAHC) be legally binding. However, Public Resource Code Section 5097.991 states that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. Furthermore, the role of the NAHC is well defined. The NAHC shall mediate, upon application of either of the parties, disputes arising between landowners and known descendents relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials.

The agreements shall provide protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction and provide for sensitive treatment and disposition of Native American burials, skeletal remains, and associated grave goods consistent with the planned use of, or the approved project on the land.

B5-160 Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines.

Please refer to responses A10-4 through A10-14.

- **B5-161** EIR Section D.5, Geology and Soils, adequately addresses the geological environment of the area. This section has been modified in the Final EIR to provide additional detail as a result of this and other comments. These additions do not substantially change the analysis or the conclusion of the EIR. Specific responses to comments are provided below:
 - (1) The EIR used the analysis from the SNGS PEA plus other information and independently reviewed it for the preparation of the EIR.
 - (2) Reports from the PEA were available on the CPUC SNGS website. See response A11-13 regarding availability of the technical studies.

- (3) The EIR acknowledges that the geology in the Florin Gas Field is not well known and is based on the past well data for the area and modeling. The consultants for the applicant as well as for AGENA speculate on the structure based on limited information. It is not feasible to gain additional data on geologic structure for the EIR since additional data would require drilling of exploratory wells, requiring extensive expenditures of cost and only providing limited data. The EIR took a conservative approach in the Hazardous Materials, Public Health and Safety section of the EIR and concluded there was a potential that natural gas could be released from the reservoir, resulting in a significant safety impact.
- **B5-162** The EIR is correct in its description of active faults in the region. As with most areas, there are also a number of inactive faults. There is an anomaly in the data for the Florin Gas Field that could be an inactive fault. Its presence is speculative and it is uncertain whether this is a fault or other type of anomaly. It is also speculative whether the presence of a fault would increase the potential for gas migration to the surface. The EIR took a conservative approach and considered the potential for gas migration a significant impact within the Hazardous Materials, Public Health and Safety section of the EIR.
- **B5-163** The EIR did address the impact of seismic ground shaking and provided mitigation measures to address the impacts to structures, including pipelines. The EIR also addressed erosion, subsidence, liquefaction, landslides, and lateral spreading in Sections D.5.1.2, D.5.3.1, and D.5.3.3. These impacts were clearly described in the EIR.
- **B5-164** The EIR is correct that liquefaction is not considered a significant impact. The Soils Condition Report is not a mitigation measure, but it is a requirement of the City of Sacramento. This study is needed as it is the basis for the final design of facilities and it considers designs of foundations and pipelines relative to liquefaction potential.
- **B5-165** Please refer to response B5-164. The Soils Condition Report is required by the City of Sacramento for building permits. Based on the overall site conditions in the area, expansive soils are not expected along the pipeline. The Soils Condition Report will identify specific construction procedures to deal with any soils conditions as part of project design.
- **B5-166** The Alquist–Priolo Zoning Act is an appropriate standard for pipelines and for the reservoir since it deals with the potential for fault rupture. Fault rupture is of primary concern with pipeline construction since it would have a high potential
for pipeline damage. Fault rupture from an active fault would also be of concern in a gas reservoir.

- **B5-167** Please refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process and the availability of reports. It is appropriate to conduct final design of the project after the completion of environmental studies. The standards for the final design have been identified in the EIR.
- **B5-168** Please refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process and availability of reports. Impact G-2 in Section D.5, Geology and Soils, has been modified to clarify the source of the information.

This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-169** Please refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process and availability of reports. The project site has experienced low subsidence levels according to the Yolo County Subsidence Network 2000 information. This is even with the extraction of the gas from the original Florin Gas Field.
- **B5-170** Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines.

Please refer to responses A10-4 through A10-14.

B5-171 The chemical make up of the residual gas is not expected to result in any significant impacts. Sales gas in the Sacramento area is routinely taken from a number of sources without any impacts. Furthermore, the gas from the Florin Gas Field was used for a variety of industrial and other applications without any effect. Therefore, there is no need to test the chemical composition of the residual gas.

- **B5-172** There have been no records found of any investigations for contamination of soils or other contamination as the EIR states. Boring under the tracks and construction of the pipelines will not create any special hazards since it will be constructed in conformity with the applicable federal and state standards for crossing of railroad tracks. The pipeline safety analysis in Appendix B of the EIR analyzes the impacts of a pipeline rupture throughout the proposed pipeline alignment.
- **B5-173** The pipeline safety analysis in Appendix B of the EIR addresses the impacts of torch fires from the diameter of pipes associated with the project. It is not possible to predict the type, intensity, or location of torch fires associated with either a pipeline leak or gas migration from the reservoir. In fact, it would be highly unlikely that torch fires would occur at all from gas migration since it would need a constant source of gas such as from a pipeline leak. Such a predication would depend on a wide number of variables, including the size and pressure of the leak, the duration of the leak, the location of the leak, the amount of leakage before ignition, and meteorological conditions. Impacts could span the full spectrum of conditions, as described in the EIR.
- **B5-174** Please refer to response B5-173. The impact of gas leakage is highly variable and cannot be predicted with any certainty. It is likely that many of the potential gas leaks would produce gas levels below the explosive levels. Gas could accumulate in buildings or other structures and reach explosive levels. The intensity of such an explosion would depend upon the quantity and concentration of gas and the type of ignition source.
- **B5-175** Appendix B of the EIR, System Safety and Risk of Upset, and Section D.6 of the EIR present the exposure to vehicular occupants using the traffic volumes presented in Section D.12 of the EIR. The exposure to building occupants and residences was based on existing development, as depicted on the aerial photography available at the time the EIR was prepared Significant changes to the existing land uses, population densities or traffic volumes are not envisioned in the foreseeable future. The cited statement included in the Draft EIR is correct that, "should population density or traffic volumes increase over the life of the project, the resulting likelihood of serious injuries and fatalities would increase accordingly." Since significant changes in population densities are not anticipated, the level of risk presented in the EIR (which includes some changes to the risk assessment analysis) are reasonable, as they relate to population density. See also responses to comment letters D1 and D2 for a discussion of changes that have been made to the analyses presented in the Final EIR.

- **B5-176** The pipelines and storage facility will transport and contain natural gas in the gaseous state. Although some natural gas liquids will result from compression, the volumes of these liquids will be relatively small. Since the volumes are small, the hazards posed by the natural gas liquids do not add appreciably to the risks posed by the gaseous state natural gas as presented in the EIR (which includes some changes to the risk assessment analysis). See also responses to comment letters D1 and D2 for a discussion of changes that have been made to the analyses presented in the Final EIR.
- **B5-177** Mitigation measures in Section D.6, Hazardous Materials, Public Health and Safety, have been modified in the Final EIR where necessary to address this comment. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-178** Please refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process and the availability of reports.
- **B5-179** Additional description of the monitoring program is provided in Mitigation Measure HAZ-2a*ii* of the Final EIR. It should be noted, however, that a number of agencies and organizations will require approval, and the program may be changed or expanded based on this input during subsequent permitting and approval. The testing sites will be determined by those agencies, but it is anticipated they would be located in public areas where no new significant impacts will occur. Changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-180** Mitigation Measure HAZ-2b*i* has been modified in the Final EIR to include the qualification of operators. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-181** The analysis does identify methyl mercaptan as a hazardous material and provides mitigation for this impact. The discussion of Impact HAZ-1c (Use, Transportation, and Storage of Methyl Mercpatan) has been expanded in the Final EIR to include additional information on this chemical. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-182** The risk of fire and explosion emanating from pipelines is independent and based on size and length of pipeline. Connection of another pipeline will not alter this risk.
- **B5-183** Contrary to Dr. Robertson's assertion, the wells appear to be properly plugged. As a portion of the DOGGR permitting process for the facility, they will require that a radius review of the Proposed Project site be conducted to identify all previously drilled and abandoned wells. Each well will require engineering studies including field testing. Any wells not meeting DOGGR's standards will require measures to bring them in conformance with standards. Therefore, no significant impacts associated with leakage from former wells are anticipated.
- **B5-184** Shallow ground water may be contaminated within the project area. If dewatering is necessary, the EIR mitigates this impact through treatment or otherwise approved disposal of this groundwater. Drilling of the wells will be conducted according to the regulations and requirements of DOGGR. This drilling is not anticipated to result in cross contamination of groundwater.
- **B5-185** The entire pipeline is considered a high consequence area (HCA).
- **B5-186** The pipeline safety analysis was conducted using historical data reflecting risk and consequences of pipeline failure. Use or discussion of anecdotal data as the commenter suggests does not add to this analysis and is not required.
- **B5-187** Please refer to response B5-175 regarding anticipated changes to population density and traffic volumes.
- **B5-188** The requirements of APM 5, including the development of the injection and abandonment plans, are done during the permitting phases of the study and are under the direction of DOGGR and other agencies. Compliance with these plans will be monitored as part of the mitigation monitoring.
- **B5-189** Practical considerations do not allow the development of such plans at this stage. These studies are technical studies that are part of final design and subsequent permitting by DOGGR and other agencies. Much of this information and the required detail needed for this analysis can only come at final design.
- **B5-190** Please refer to comment letter A7 from DOGGR and responses to this letter, which generally outline the DOGGR review process.
- **B5-191** The potential for gas migration is low, but it is possible. The development of Mitigation Measure HAZ-2a*ii* cannot be provided in detail at this time since it

will involve a multiagency approach for both the sampling plan and the response to detected leakage and remediation. The reason the impact is considered unavoidable and significant is that the pathways for any migration, and the consequences of this migration, are one of conjecture. If gas migration is detected, the source and pathways must be determined and specific measures to remediate the issue determined. The 5-year period for monitoring has been eliminated, and monitoring will occur during the life of the project. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-192** These pipelines will be regulated by a number of state, federal, and local agencies as outlined in Section D.6.2 of the EIR. The period of inspections during construction and operations of the pipelines will be determined. It is likely that inspections will increase in frequency with the age of the pipelines and if any signs of deterioration are detected.
- **B5-193** The list of hazardous materials expected to be used during construction presented in the EIR is accurate. Natural gas will not be directly used during construction.
- **B5-194** The amount of drilling mud that will be used will vary depending upon the mud that will be reused. Non-toxic drilling mud will be used and in many instances and may not require disposal in a special facility. The location where mud will be disposed of will depend on if any contamination is present, and that is not known at this time.
- **B5-195** With the exception of the methyl mercaptan, the operation of the facility is not expected to transport hazardous substances. The EIR did address transport of materials, such as fuels and solvents, used during construction.
- **B5-196** There are a number of suppliers that could provide methyl mercaptan to the site. It is not realistic to discuss freeway routes since this material could be transported from many different directions. The transportation analysis therefore focuses on the local roadways where methyl mercaptan will travel near schools and other sensitive receptors.
- **B5-197** The Batelle analysis is a conservative estimate of the frequency of accidents, most of which did not involve the release of any hazardous chemicals. The compliance with regulations and the identification of routes have further reduced the potential for impact from this source. Furthermore, Mitigation Measure HAZ-1*cii* of the Final EIR has been revised to stipulate that deliveries will be conducted only at

night, further reducing any impact to schools. This addition to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-198** The list of schools in the EIR is an adequate depiction of schools in the area. Furthermore, Mitigation Measure HAZ-1c*ii* has been revised to explain that deliveries of methyl mercaptan will be conducted at night when schools are not in session and will therefore not impact schools . This revision to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-199** Mitigation Measure HAZ-1*cii* has been revised in the Final EIR to indicate that deliveries of methyl mercaptan will be transported only at night, thereby reducing any impacts to schools. The description of the delivery route described in Impact HAZ-1c in Section D.6 of the Final EIR has been revised to indicate that the delivery route to the wellhead site is longer on Power Inn Road and HAZ-1*ciii* has been revised to clarify the description of delivery routes. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-200** Because Mitigation Measure HAZ-1*cii* has been revised in the Final EIR to indicate deliveries of methyl mercaptan shall occur only at night, it is not necessary to provide a route map showing schools.
- **B5-201** Currently, the applicant proposes to use and store methyl mercaptan at both the compressor station and the wellhead site, as addressed in the EIR. Since the use of methyl mercaptan will be limited and will primarily be used during startup periods, it may be possible to do all injection at the compressor stations. The location of the structures at the compressor station and wellhead site are shown on Figures D.13-1 and D.13-2 of the EIR, respectively. Section B.2, Project Description, of the EIR adds further information about the storage structures.
- **B5-202** Please refer to response B5-201.
- **B5-203** Extensive migration of gas from the Proposed Project is speculative and will likely be contained within the project area. The Hutchinson, Kansas migration and explosion that is cited by the commenter involves salt caverns that are much more porous and are prone to extensive gas migration.

- **B5-204** Please refer to response B5-205.
- **B5-205** Dr. Robertson provided no map or other detailed information as to the size of the reservoir. He also did not state whether he believes the reservoir is larger horizontally or vertically.
- **B5-206** A significant impact associated with gas leakage and migration was identified in the EIR, and all potential risks associated with any daycare facilities have been addressed as they apply to any structures located within the general area. Further, all of the listed facilities have been given notice in regards to the Proposed Project.

The commenter specifically cites two sections of the California Education Code, particularly Section 17609, in order to include private daycare facilities as meeting the definition of "schools," as it applies to CEQA Guidelines Sections 15186(b)(1) and (2). Leaving aside any distinctions between the definitions of "school" as opposed to "schoolsite," Section 17609 of the California Education Code specifically addresses the use of pesticides as part of the Healthy Schools Act of 2000. Upon review of the intent of the California Legislature as discussed in Assembly Bill No. 2865, the Legislature specifically identifies this section of the California Education Code as managing pests and the use of pesticides at schools and states "this bill would expand the definition of 'schoolsite' as used in these provisions to also include private child day care facilities, as specified." Therefore, it is unlikely that the California Legislature intended to include such a definition as it relates to "schools" pursuant to CEQA Guideline 15186. Regardless, as stated, these facilities have been given notice of the Proposed Project. The scoping meeting was made available for these facilities, and they had the opportunity to be involved in the CEQA process and to voice their concerns..

Neither natural gas and its common components (methane, butane, propane) nor methyl mercaptan are listed as hazardous air emissions. While hazardous air emissions are associated with operation of the compressor station (glycol dehydration process) and, to a lesser extent, the emergency generator, no schools or daycare centers are within 0.25 mile of the compressor station.

The definition of extremely hazardous substances in CEQA Guidelines Section 15186 refers to Table 3 of Title 19 CCR Section 2770.5. Natural gas (or its common components) is not listed in Table 3. Methyl mercaptan is listed, but the storage limits of methyl mercaptan will be below the reporting threshold of 500 pounds.

- **B5-207** Because deliveries of methyl mercaptan will occur at night, there will be no impact associated with school bus routes. Please refer to response B5-197.
- **B5-208** The analysis of alternatives, as well as the pipeline safety analysis, considers the potential impacts of the projects and the land use and population near each alternative site. For example, the environmentally preferable gas field alternative is located in an area that is less populated.
- **B5-209** Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines. Please refer to responses A10-4 through A10-14. Please refer to responses B5-210 through B5-214 in response to specific comments on hydrology.
- **B5-210** Additional information has been provided in Section D.7 of the Final EIR describing the aquifers in the area. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-211** The Proposed Project involves the containment of any potentially contaminated water from the facilities and treatment prior to discharge.
- **B5-212** Drilling mud used for drilling of the wells and for HDD will be non-toxic mud. The mud used will be encased to prevent release into the groundwater. There is a potential for a small amount of groundwater to be captured within the casing, creating potentially contaminated water. No additional impacts will occur.
- **B5-213** It may or may not be possible to detect the source of leaks because the leaks could migrate among geologic formations, reaching the aquifers and finding a route to the surface. Depressurization of the reservoir may or may not reduce migration in a short period of time. The type and remediation of the groundwater would vary depending upon the extent of contamination. These could range from little remediation to extensive remediation. This is why the impact to groundwater is considered significant and unavoidable.

- **B5-214** Alternatives to the Proposed Project also involve aquifers. It will be up to the CPUC commissioners as to whether or not to approve the project and to adopt a statement of overriding considerations.
- **B5-215** Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines.
- **B5-216** The comment is noted. The description of Depot Park and associated parkland sites has been clarified in the Final EIR, specifically within Sections D.8, D.9, and D.13. These changes to the EIR do not constitute significant new information and do not change the EIR in such a way as to deprive the public of meaningful review, nor do they raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

As described in the EIR in Section D.8, Table D.8-1, two parkland sites are located within the boundary of Depot Park. The Final EIR text has been updated to clarify that the eastern site, Army Depot Park, is developed with an adult baseball field, bleachers, and a scoreboard. Army Depot Park is not equipped with nighttime lighting. The western site (proposed south of Santa Cruz Street) is not currently developed. Army Depot Park is publicly accessible; however, access is limited to the Depot Park as an access controlled gate is located on Okinawa Street, west of the baseball field. Although Army Depot Park is a public baseball field, the park has limited use due to its utilization as an adult-sized field and due to the absence of nighttime lighting. Therefore, it is assumed that Army Depot Park is used primarily on the weekends and sparingly during weekday evening hours by adult baseball leagues. In addition, the siting of the park is such that players on the field would tend to look in a general southwestern direction towards the on-field action and persons sitting in field bleachers would tend to look in a general northeastern direction. The proposed compressor station site is located northwest of the baseball field and on-field and bleacher views of the site would be screened by intermittent buildings

The comment referring to Figure D.13-2, KOP 6 is noted. Please refer to the discussion in the previous paragraph. Intervening buildings are visible in the upper left corner of KOP 6 (Figure D.13-2). It should be noted that the photo is

taken from the outer edge of the outfield past third base and that the majority of the game activity (as seen by potential viewers) would be farther south. Views toward the compressor station from the actual baseball diamond would be mostly obstructed by several additional buildings that are located between Army Depot Park and the compressor station site. These buildings can be seen in the aerial photo in Figure D.13-2, Compressor Station Site KOP Key Map.

- **B5-217** Please refer to response A10-4 regarding the comment raised on the preparation of the Draft EIR and the City's recent adoption of the 2030 General Plan. Section D.8, Land Use, Agriculture, and Recreational Resources, of the EIR contains a consistency analysis between the City of Sacramento 1988 General Plan goals and policies and the Proposed Project. EIR Section D.6 proposes mitigation measures to minimize impacts due to hazards associated with the project.
- **B5-218** The comment is noted. The intent of the referenced policy is to promote conservation and energy efficiency through measures including solar and renewable technologies. As discussed in Section B, Project Description, of the EIR the compressor station would be housed in a building approximately 50 feet by 110 feet and would stand approximately 24 feet high. In addition, the section further states that SNGS, LLC is in the process of negotiating an agreement with SMUD to have a minimum of 50% of the energy for the electric compressors be provided by alternative sources, such as solar, hydro, geothermal, or wind power, which would be consistent with the referenced 1988 General Plan policy. This is an existing program developed by SMUD, the Greenergy program, which allows SMUD customers to pay an additional fee for their electricity to allow for 50% of the electricity to be obtained from renewable resources. EIR Section F.4.1 includes Mitigation Measure C-2, which indicates that SNGS, LLC shall enter into this agreement.
- **B5-219** Please refer to responses B5-87 and B5-249 regarding the comment on the public participation process. Section D.5, Geology and Soils, of the EIR addresses potential impacts as a result of seismic and geologic hazards. The findings of a geotechnical report have been incorporated into the content of each respective section. Mitigation measures are included in order to reduce potential impacts. Additionally, the applicant includes project design features, or APMs, in order to minimize geologic concerns, as detailed in Table B-4 of Section B, Description of the Proposed Project.
- **B5-220** Please refer to responses A10-4 through A10-14 regarding the comments raised on the preparation of the Draft EIR and the City's recent adoption of the 2030 General Plan.

- **B5-221** Please refer to response B5-218 regarding the comment on consistency between the Proposed Project and the 1988 General Plan policy promoting conservation and energy efficiency. The compressor station and other buildings will use solar power for lighting and similar functions where feasible. The electrical energy for the compressors will use up to 50% renewable energy including solar. The Proposed Project is a natural gas storage project, but will not bring in additional supplies to the area.
- **B5-222** Please refer to response A10-11 regarding the comment on General Plan 2030 directive to avoid the concentration of high-impact uses and facilities in a manner that disproportionately affects a particular neighborhood or center.
- **B5-223** Please refer to response A10-4 regarding the comments raised on the preparation of the Draft EIR and the City's recent adoption of the Fruitridge Broadway Community Plan. In addition, please refer to comments B5-93 and B5-110 regarding the comments on anticipated employment needs generated by the Proposed Project.

The EIR <u>does not</u> suggest the Proposed Project would have significant noise and odor impacts at neighboring Employment Center (Low Rise) properties. While the EIR concludes that the construction of the wellhead site would result in a short-term significant increase to the ambient noise level, mitigation measures are proposed to minimize this impact. Operation of the Proposed Project would not have significant noise and odor impacts at neighboring Employment Center (Low Rise) properties. Section D.9 of the EIR states that noise from operation of the wellhead site and the compressor station would be less than significant. Regarding odors, Section D.2, Air Quality, of the EIR concludes that none of the chemicals associated with proposed operations that have the potential to create a perceived odor would exceed the odor thresholds at any of the receptors. The EIR addresses adverse impacts associated with land use, noise, and odor impacts from the Proposed Project and includes mitigation measures in order to minimize potential significant impacts.

- **B5-224** Please refer to response A10-4 regarding specific responses to comments raised on the preparation of the Draft EIR and the City's recent adoption of the 2030 General Plan. The omitted policy identified by the commenter refers to the City's responsibility with regards to the permit approval process.
- **B5-225** The Final EIR has been updated to include a consistency analysis between the relevant policies of the County of Sacramento Draft Updated General Plan and the Proposed Project. Please refer to Section D.8 of the Final EIR. As discussed in

Section B, Project Description, the only project component located in the County of Sacramento would be a portion of the Florin Gas Field. Therefore, since the project would not locate any permanent structures or include any construction within the jurisdiction of the County, the only General Plan elements found to be applicable were the Land Use, Hazardous Materials, and Safety elements. These changes and additions to the EIR do not constitute significant new information and do not change the EIR in such a way as to deprive the public of meaningful review, nor do they raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-226** Please refer to response B5-91 regarding the comments on the public health and safety impacts of the Proposed Project. The EIR analyzed the relevant policies of the 1993 General Plan and the Proposed Project for consistency. Please refer to Section D.8, Table D.8-6 of the EIR.
- **B5-227** Please refer to response B-225 regarding the comment raised about the analysis within the EIR of the Proposed Project and the applicable goals and policies of the County of Sacramento's 1993 General Plan. Also, refer to response A11-11 regarding the fire hazard risks.
- **B5-228** Please refer to Section D.8 of the EIR for discussion of potential land use impacts associated with the Proposed Project. As further discussed in this section, natural gas from the Florin Gas Field was extracted up until 1987, at which time the reservoir became depleted. In addition, from approximately 1980 to 1988, Union Oil Company operated two natural gas wells in what is now Danny Nunn Park. Therefore, natural gas wells and extraction operations previously existed in the area.
- **B5-229** For normal operations of the SNGS project, the Proposed Project will be in compliance with LU-40. In the unlikely event that methane would migrate into the aquifer, there would be a potential for water quality impacts. This impact is addressed in Section D.7, Hydrology and Water Quality, as Impact H-8, Operation and Maintenance Impacts to Surface Water and Groundwater Quality.
- **B5-230** Section D.8, Land Use, Agriculture, and Recreational Resources, identifies the applicable jurisdiction in which each individual project component is located and the underlying zoning for each project component site. As stated in Section D.8, the wellhead site would be located within the jurisdiction of the City of Sacramento on land zoned M2-S. Pursuant to the City of Sacramento City Code, gas wells are an allowable use on lands zoned M-2S provided applicants/operators

obtain a special use permit and comply with specific enclosure, setback and landscape requirements (Sacramento City Code, Title 17, Division II, Part I, Chapter 17.24). Section 301-19 of the Sacramento County Zoning Code states that oil and gas well sites shall not be located within 1,000 feet of property zoned for residential or recreational purposes. As proposed, the wellhead site is located more than 1,000 feet from the nearest residential or recreational use within the County of Sacramento.

- **B5-231** As discussed in response A10-11, the Florin Gas Field is located approximately 3,800 feet below ground surface and was previously utilized for gas extraction. The commenter suggests without evidence that implementation of the Proposed Project would deteriorate a recreational facility. It should be noted that no surface facilities will be altered at Danny Nunn Park with the exception of potentially a monitoring station. Please refer to Section D.6 of the EIR for analysis regarding potential hazardous materials and public health and safety impacts associated with construction and operation of the Proposed Project. Section D.8, Land Use, Agriculture, and Recreational Resources, of the EIR addresses potential impacts to recreational resources resulting from implementation of the Proposed Project. As further discussed in this section, aside from temporary noise impacts associated with construction, the project is not anticipated to result in any other disruptions to recreational facilities.
- **B5-232** Please refer to Sections D.8 (Land Use, Agriculture, and Recreational Resources), D.9 (Noise and Vibration), and D.2 (Air Quality) of the EIR for discussion regarding potential impacts resulting from implementation of the Proposed Project. As stated in these sections, potential noise and odor impacts resulting from construction and operation of the compressor station would be less than significant and would therefore not impact existing or future park uses in the project vicinity. Section D.8 of the EIR discusses the existing environmental setting of the compressor station site and surrounding land uses. The compressor station is located on industrial land within an industrial business park and would be fully enclosed within a building. Operation of the compressor station would not conflict with future development of the western City of Sacramento parkland site within Depot Park.

George Sim Park is located approximately 0.25 mile north of the boundary of the Florin Gas Field and 0.25 mile northwest of segment one of the proposed pipeline. As both of these project components would not be visible aboveground, the Proposed Project is not expected to deteriorate the existing aesthetic environment surrounding George Sim Park.

- **B5-233** Please refer to response B5-243 regarding public health and safety impacts associated with the operation of the Florin Gas Field. The impacts of release of gas from both the reservoir and the pipelines are addressed in Section D.7 of the EIR. Under normal operations, the Proposed Project will not result in significant health and safety impacts to recreation.
- **B5-234** Please refer to comments B5-93 and B5-110 for specific responses to comments raised on employment generated as a result of implementation of the Proposed Project. As further discussed in these responses, approximately 70% of the Proposed Project construction labor force is anticipated to come from the Sacramento area and operation of the Proposed Project would require the hiring of three new employees.
- **B5-235** Section D.8 of the EIR, Land Use, Agriculture and Recreational Resources, addresses recycling measures proposed by the project. The Proposed Project, which would recycle materials used during construction where feasible, is consistent with the applicable 1988 General Plan policy which seeks to expand recycling efforts to the maximum extent feasible. Please refer to response A10-4 regarding specific response to comment raised on the preparation of the EIR and the City's recent adoption of the 2030 General Plan.

Table D.8-5, Consistency Analysis with Applicable Proposed 2030 General Plan, Policy, or Goal for the Proposed SNGS City of Sacramento Project Components, of the Final EIR has been updated to include Policies U 5.1.15 and U.5.1.16 of the 2030 General Plan Utilities Element. Refer to Table D.8-5 for consistency analysis. The addition of this policy to the Final EIR does not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

B5-236 Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding the comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines.

Please refer to Section G, Mitigation Monitoring and Reporting, of the EIR, which addresses mitigation for potential hazardous materials impacts associated

with the Proposed Project. As discussed in Table G-1 of the EIR, the gas detection plan (which would contain information regarding the location of future Florin Gas Field monitoring wells) would require the approval of both the City and County of Sacramento prior to the issuance of a construction permit. The placement of monitoring wells is not anticipated to result in the displacement of land uses. Monitoring wells are not large, aboveground structures but rather belowground measuring facilities.

- **B5-237** Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines. Please refer to responses A10-4 through A10-14 regarding the General Plan 2030 analysis.
- **B5-238** Please refer to response B5-101 regarding the project construction schedule and phasing.
- **B5-239** The EIR provides all feasible mitigation measures to reduce identified noise impacts. Drilling of wells and certain HDD activities, such as pipe pull in and conduit pull in <u>must continue 24 hours per day</u> until the activity is concluded and therefore cannot be limited to weekday-only construction.
- **B5-240** Residential units are located approximately 200 feet across Power Inn Road from the wellhead site. It is anticipated that the noise-producing equipment will not produce impulsive or simple tones. Based on the noise source level information provided by the applicant for the noise-producing equipment at the site, the resulting noise level would be 48 dBA or less at the nearest residences to the wellhead site. This noise level would be well below the existing measured ambient daytime noise level of 77 dBA. Although not measured, it is anticipated the noise level would also be below the existing nighttime ambient noise level. The anticipated mechanical equipment noise level would comply with the City's noise ordinance criteria and would result in a less-than-significant noise impact.
- **B5-241** Please refer to responses A10-4 through A10-14 regarding the General Plan 2030 analysis.
- **B5-242** Comment noted. Please refer to responses B5-243 through B5-254.

B5-243 In Section D.10, Population and Housing, subsection D.10.3.3, Impacts, of the EIR, Impact P-4, Environmental Justice, accounts for public health and safety impacts. As stated under Impact P-4, for issues regarding the safety of residents, please also refer to Section D.6, Hazardous Materials, Public Health, and Safety, regarding pipe rupture and potential leakage from the underground reservoir. Concern has been raised during the public scoping process relating to the Proposed Project's impacts to public health and safety. As discussed in Section D.6 of the EIR, extensive analysis has been conducted on the reservoir and it has been concluded that the potential for release of natural gas resulting in fire, explosion, and release of toxic substance is low. Mitigation Measures HAZ-2ai, HAZ-2aii, and HAZ-2bi through HAZ-2bix, outlined in Section D.6, further reduce the potential for occurrence, but not to less-than-significant levels. In addition, Section D.7 of the EIR discusses the potential release of gas into the groundwater aquifer due to natural gas entering the aquifer through migration of the gas through faults in the cap rock or through abandoned operating wells. The likelihood of this occurrence is low; however, the consequences of contamination are considered significant. Mitigation Measure H-8b reduces the potential, but not to less-than-significant levels.

Also of concern is the potential of rupture of proposed pipelines and subsequent fire and explosion if the gas cloud ignited. There is the potential that this could impact nearby disadvantaged residential areas. Mitigation measures outlined in Section D.6 of the EIR further reduce the potential for occurrence, but not to less-than-significant levels.

B5-244 The existing environmental setting used to evaluate the project's impacts to population and housing is described in Section D.10.1 of the EIR. As described in Section D.10.1, the EIR presents and utilizes for purposes of impact analysis comprehensive baseline population, housing, and employment data. Regional, local, and site-specific socioeconomic information is presented in Sections D.10.1.1 through D.10.1.3 of the EIR. The Sacramento Area Council of Governments (SACOG) Information Center website provides statistics from multiple sources on population, housing, and employment. Year 2005 population statistics as well as projection data for the study area was provided by SACOG. Population projections are consistent with the SACOG Draft Metropolitan Transportation Plan for 2035 (MTP2035) "Population Growth and Distribution" (2008). Housing projections were based on the SACOG MTP2035 "Land Use Allocation" (2008). Year 2000 population and housing statistics were determined by the California Department of Finance (2008). Data from the California Department of Finance is not directly comparable to the SACOG data due to

differing methodologies. Both sources are used in this document in order to present a complete data set and for purposes of disclosure. The U.S. Census Bureau (2000) provided data concerning population, race, ethnicity, and employment characteristics.

In response to this comment, the Final EIR has been revised to provide further clarification that historical information relating to development of the project areas was not used in assessing impacts to environmental justice. This change to the EIR does not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-245** Please refer to responses B5-243 and B5-244.
- **B5-246** It will be up to the CPUC to determine the equity and suitability of any royalties related to the Proposed Project.
- **B5-247** In Section D.10.3.3 of the EIR, Impacts to Population and Housing, Impact P-5, Urban Decay and Degradation, considered the project's impact on urban decay and blight. As discussed under Impact P-5, the impact of a project on property values is highly speculative and is the result of many factors. For example, a review of the project area indicates that a number of homes are in disrepair and presumably in foreclosure, which may be due to the ongoing recession and resulting housing downturn.
- **B5-248** Please refer to response B5-243.
- **B5-249** As described in Section H of the EIR, Public Participation, the CPUC has expended substantial effort in seeking and responding to public comment on the Proposed Project, including ensuring that low income/minority communities affected by the project had equal access to and opportunity to participate in the environmental decision-making process. As discussed in Section H of the EIR, the distribution list for noticing included 749 property owners within 300 feet of the project, as well as 28 state and federal agencies and 41 local agencies and planning groups.

In order to maximize agency and public input on the SNGS Facility, the CPUC established a website:

(http://www.cpuc.ca.gov/environment/info/dudek/sngs/SNGS_Home.htm)

and local EIR information repositories. The NOP, scoping report, public notices, and other project information were posted to the project website for review by the public and interested parties.

Public notification for the Proposed Project and scoping meetings entailed a newspaper announcement and the mailing of the NOP and public notices. Notice for the public scoping meeting was published in the Sacramento Bee on November 16, 2007. Concurrent with the distribution of the NOP, public notices regarding the project and CEQA scoping process were distributed.

The public scoping meeting was held on Thursday, December 6, 2007, at the Conference Center at Depot Park, 8215 Ferguson Street, Sacramento, California. As indicated in the sign-in sheet, 15 individuals not part of the project team attended the meeting.

In December 2007, a comprehensive scoping report was issued summarizing concerns received from the public and various agencies and presenting copies of comment letters received. Nine letters were received from public agencies and private organizations during the NOP scoping period. One letter was received after the scoping period. Commenting agencies and scoping meeting attendees were provided a copy of the scoping report. Agencies, private organizations, interested groups, and adjacent property owners were also notified via public notice that the scoping report was posted on the Proposed Project website at http://www.cpuc.ca.gov/environment/info/dudek/sngs/SNGS_Home.htm and available for review.

In addition, a public meeting regarding the Draft EIR was held on April 28, 2009, at the Conference Center at Depot Park, 8215 Ferguson Street, Sacramento, California. According to the sign-in sheet, approximately 130 individuals, including community members, neighborhood groups, agency representatives and project team members, attended the meeting.

- **B5-250** Please refer to response B5-249.
- **B5-251** Please refer to response B5-249.
- **B5-252** The public scoping meeting was held on Thursday, December 6, 2007, from 6:00 p.m. to 9:00 p.m. at the Conference Center at Depot Park, 8215 Ferguson Street, Sacramento, California. The scoping meeting was held pursuant to CEQA Guidelines Section 15082 (c)(1).

- **B5-253** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-254** In Section D.10 of the EIR, Population and Housing, subsection D.10.4, Project Alternatives, states that there would <u>not be</u> environmental justice impacts associated with the Freeport, Snodgrass Slough, or Thornton Gas Field alternatives.
- **B5-255** The population and housing impacts discussed under the No Project Alternative in EIR Sections D.10, Population and Housing, and D.11, Public Services and Utilities, refers only to short-term disruption impacts to people, housing, and utilities that may result from a disruption of natural gas supplies under the No Project Alternative. As further discussed in Section F.1 of the EIR, Growth-Inducing Effects, the Proposed Project would provide a reliable source of natural gas to the metropolitan region of Sacramento in the event of a disruption of service from the Pacific Gas and Electric (PG&E) supply pipelines 400/401 that serve the area.

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.

B5-256 Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project, pursuant to Section 15124 of the CEQA Guidelines.

Please refer to responses A10-4 through A10-14 regarding the General Plan 2030 analysis.

- **B5-257** The Proposed Project addressed all of the potential Appendix G thresholds that may be potentially applicable in the NOP, distinguished between Attachment 1 and Attachment 2. As stated in the NOP, not all of the potential issues derived from Appendix G from the CEQA Guidelines were automatically implicated as potentially significant impacts. The EIR evaluated all of the potential impacts in light of the Proposed Project and accurately evaluated all potentially significant impacts based upon an assessment of the technical evidence and expert evaluations. Additionally, the EIR does discuss a number of the listed impacts from the comment in the analysis as it relates to the Proposed Project, including fire facilities, police facilities, schools, water, solid waste, and wastewater (refer to Section D.11 of the EIR). The Proposed Project would have no impacts on surrounding parks or other public facilities. Regardless, potential impacts to parks are further discussed under Section D.8 in the EIR. Again, the EIR evaluated and determined which impacts may have the potential to cause a significant impact and evaluated those impacts in appropriate detail and provided all feasible mitigation in order to reduce the impacts to a less-than-significant level. This information has been provided to allow for meaningful public review, public comment, and informed decision making on the part of the lead agency. Please refer to response B5-269.
- **B5-258** Water service to the Proposed Project would be provided by the City of Sacramento's Department of Utilities. As a new development, the Proposed Project would be subject to a number of fees imposed by the Department of Utilities. In order for the wellhead site to connect to the City's existing transmission water main located in Power Inn Rod, the project would be subject to a water service tap fee (fee is dependent on the size of the lateral delivering water to the project would be subject to a water development fee, a fee imposed on all projects requiring a new connection to City infrastructure in order to pay for new water supply analysis/water supply field test, which is utilized by the City to verify adequate supply and water flows exist to serve the Proposed Project. The water supply field test would verify whether the existing water flows meet UBC Fire Code and City regulations for emergency events.

As part of the consultation process with the City of Sacramento, the CPUC met with the City of Sacramento, Department of Public Utilities, to discuss water supply and other critical issues concerning the City.

- **B5-259** Section D.6, Hazardous Materials, Public Health and Safety, evaluates potential impacts associated with the use, storage, and transport of hazardous wastes. As stated in the section, accidental conditions (spills) and well drilling could generate unknown quantities of hazardous wastes that would require disposal at an appropriate approved facility. Due to the uncertainty with regards to potential hazardous materials requiring disposal, the anticipated quantities of materials generated during construction and operation are not known. Regardless, hazardous materials will be disposed of at an appropriate facility. Pursuant to the City of Sacramento General Plan 2030, Goal PHS 3.12.4, the City of Sacramento restricts the transportation of hazardous materials within city limits to designated routes. These routes are not specified in the General Plan but would presumably be identified by the City prior to the approval of the Traffic Control Plan proposed by the project.
- **B5-260** The proposed pipeline facilities are required by federal law to be operated and maintained in accordance with Title 49 Code of Federal Regulations, Part 192 (49 CFR 192). 49 CFR 192, Subpart I provides the requirements for internal and external corrosion control, including isolation, interference, and monitoring. Subpart L provides the requirements for operations, including requirements for operations and maintenance manuals, which must include cathodic protection. Subpart N provides the requirements for the qualification of pipeline personnel. Since these requirements are included in the federal regulations applicable to the proposed pipeline segments, they are not mitigation and should not be included in the text of the mitigation measure.
- **B5-261** The comment states the City must either disclose the needs study now or, if not available, the EIR must develop performance standards for determining how fees must be paid by SNGS for 1) equipment, 2) personnel, 3) training, and 4) emergency response. The comment cites to the case *Sacramento Old City Association v City Counsel* (1991) 229 Cal.App.3d 1011, 1028-29 where the court states that for "kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process...the agency can commit itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of project approval. Where future action to carry a project forward is contingent on devising means to satisfy such criteria, the agency should be able to rely on its commitment as evidence that significant impacts will in fact be mitigated."

As discussed in the EIR for Impact U-2, as well as Mitigation Measure U-2, the City of Sacramento has an expert evaluating the existing infrastructure needs and

any additional equipment or personnel the City may require based upon the proposed project. SNGS, LLC will then be required to reimburse the City for their share of such equipment or personnel. The City's needs study will provide the expert analysis required as to the number of staff required, additional equipment, training, etc. The EIR evaluates the potential impact the project may have on these facilities, including the Sacramento Fire Department and the Sacramento Police and West Sacramento Police Departments. It does not need to create an additional evaluation of how the fees will be paid when the City, acting as a responsible agency, will be separately evaluating the needed equipment and fair share payments by SNGS, LLC. The applicant will be bound to pay what the City's technical experts determine is appropriate and this will mitigate the proposed project's impact on such facilities; thus, reducing these potentially significant impacts. Additionally, SNGS, LLC will submit an Emergency Response Plan to the Sacramento Fire Department for their approval, which shall include provisions to reimburse the City for any costs related to an emergency at the SNGS site.

Depending upon the level of contamination, the groundwater may need treatment at the wellhead. Natural gas in itself is not toxic, but could create taste and other issues. It is anticipated that impacts would be localized and other wells could be used until remediation is in place.

B5-262 Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project, pursuant to Section 15124 of the CEQA Guidelines.

Please refer to responses A10-4 through A10-14 regarding the General Plan 2030 analysis.

B5-263 As discussed in Section D.12 of the EIR, Transportation and Traffic, construction of the Proposed Project components would result in additional traffic on local roadways, which would likely inconvenience residents and businesses. Project operations would not result in traffic/transportation impacts due to the limited traffic generated by the anticipated two employees. The extent of the public roadways affected by project construction would be limited to those roadways adjacent to the wellhead site, compressor station, and pipeline construction.

As stated under Impact T-2, Construction-Generated Traffic, the anticipated construction-related traffic would create a short-term and limited impact (Class II) on traffic volumes and may change traffic patterns such as to affect the 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.

- **B5-264** As discussed in Section D.12 of the EIR, under Impact T-5, Interference with Pedestrian/Bicycle Circulation and Safety, 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 (Class II) and would be mitigated to less-thansignificant levels with implementation of Mitigation Measure T-5.
- **B5-265** As discussed in Section D.12 of the EIR, under Impact T-2, Construction-Generated Traffic, Table B-3, in Section B of the EIR, provides an estimate of construction vehicle usage required for construction of the Proposed Project. As shown in Table B-3, construction of the wellhead site, compressor station, and pipeline trenching would generate additional traffic on the regional and local roadways serving the area. The primary traffic flow to and from the project component sites during construction would result from daily worker commute trips. Additional traffic would be generated from project equipment deliveries and hauling materials, such as piping, concrete, clean fill, excavation soils, and gravel, which would increase the existing traffic volumes in the project area. 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. Approximately 70% of the construction workforce (105 to 140 employees) is expected to be local, which increases the opportunity for carpooling.

Access to and from the construction sites would occur along local access routes, including SR-99, U.S. 50, Fruitridge Road, and Power Inn Road. The anticipated construction-related traffic would create a short-term and limited impact (Class II) on traffic volumes and may change traffic patterns such as to affect the 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.

Mitigation Measure for Impact T-2: Construction-Related Traffic

- **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 a.m.–8:30 a.m. and 4:30 p.m.–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.
- **B5-266** The Proposed Project in not within the impact area of an Airport Land Use Compatibility Plan and does not include components that would alter air traffic patterns. It would not, therefore, result in a change of air traffic patterns or result in substantial safety risks. Therefore, there would be no impacts.

In response to this comment, the Final EIR has been revised to provide further clarification regarding airports in the project vicinity. This change to the EIR does not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

B5-267 Comment noted. Please refer to response B5-264.

- **B5-268** Comment noted. Please refer to response B5-264.
- **B5-269** The Proposed Project addressed all of the potential Appendix G thresholds that may be potentially applicable in the NOP, distinguished between Attachment 1 and Attachment 2. As stated in the NOP, not all of the potential issues derived from Appendix G from the CEQA Guidelines were automatically implicated as potentially significant impacts. The EIR evaluated all of the potential impacts in light of the Proposed Project and accurately evaluated all potentially significant impacts based upon an assessment of the technical evidence and expert evaluations. This information has been provided to allow for meaningful public review, public comment, and informed decision making on the part of the lead agency.

The comment merely restates potential significance criteria directly from Appendix G of the CEQA Guidelines and alludes to the EIR as being insufficient because it does not specifically include the exact language in the EIR as a potential impact. In reality, the EIR reviewed all of the listed Appendix G criteria, evaluated those impacts with the details of the Proposed Project, and created site-specific potential impacts directly relevant to this particular project. As stated in Section D.12 of the EIR, "the significance criteria are based on the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines (14 CCR 1500 et seq.) and a review of environmental documentation for other utility projects in California." The preparers evaluated similar issues related to like projects as well as the listed Appendix G criteria and applied them to the Proposed Project in order to further focus the analysis to allow improved and more meaningful public review.

- **B5-270** Please refer to responses B5-263 and B5-265.
- **B5-271** Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines.

Please refer to responses A10-4 through A10-14.

B5-272 Please refer to response A10-4 regarding specific responses to comments raised on the preparation of the Draft EIR and the City's recent adoption of the 2030 General Plan.

Table D.8-5, Consistency Analysis with Applicable Proposed 2030 General Plan, Policy, or Goal for the Proposed SNGS City of Sacramento Project Components, of the Final EIR has been updated to include the relevant policies of the Aesthetic Resources Subsection of the Environmental Element. Refer to Table D.8-5 for consistency analysis. The addition of this policy to the Final EIR does not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-273** Please refer to response B5-236 regarding development of monitoring wells. Drilling of the monitoring wells may potentially result in short-term visual impacts due to construction equipment, including portable drilling rigs and vehicle and worker presence. Once operational, monitoring wells would not result in significant impacts as the wells would primarily be low profile and would not rise significantly into the existing visual landscape.
- **B5-274** The EIR does not require the construction of a 10-foot-high masonry wall. The masonry wall is proposed in order to screen views of the wellhead site and for security purposes. Standards set forth in City Code Sections 17.76.080 and 17.76.100(c) pertain to sound walls along major streets. As the project is not proposing a sound wall along a major street, the sections referenced by the commenter are not applicable to the Proposed Project.
- **B5-275** Please refer to response B5-274. As described in the EIR, Section B, Project Description, the screening wall would be constructed during development of the wellhead site estimated to take three months (see Table B-2). Further requirements defining when development of the screening wall should take place would not affect the analysis or conclusions reached in the EIR due to the short-term, three-month construction period already assumed and analyzed.
- **B5-276** As stated in Section B of the EIR, the compressors would be housed in a building approximately 50 feet by 110 feet, would stand approximately 24 feet high, and the compressor station would be surrounded by a 6-foot-high chain link security fence. The use of chain link fencing is consistent with security protocols currently used within Depot Park. The comment that the compressor station and associated project components would be considered "ugly" is an opinion of the commenter.

In addition, City Code does not require the compressor station to include a masonry wall or landscaping. Pursuant to City Code Section 17.24.050(20), development within the M-2S zone shall be conducted wholly within a completely enclosed building or within an area enclosed on all sides by a solid fence or wall. As stated in Section B, Project Description, the compressor station would be located in an enclosed building. Also, City Code Section 17.24.050(20) states that developments in the M-2S zone with street frontages must have a 25-foot setback, which is to be developed and maintained as landscaped area. As the compressor station would not be street fronting, landscaping would not be required. Please refer to Section D.13, Visual Resources, in this EIR for discussion regarding potential visual impacts resulting from development of the compressor station.

- **B5-277** As stated in Section D.13 of the EIR, Visual Resources, night lighting in association with development of the wellhead would only occur during well drilling, which is estimated to take three months. The EIR concludes that this impact is temporary and significant and provides Mitigation Measure V-1 to ensure that night lighting is directed toward the site and away from the neighboring residential uses. Implementation of Mitigation Measure V-1 would ensure that the short-term and temporary impacts from night lighting would not directly affect neighboring residential uses and, therefore, this temporary, short-term impact would be less than significant.
- **B5-278** Section B of the EIR, Project Description, provides a detailed description of construction activities associated with installing the proposed pipeline segments. Once completed, these segments would not be visible. Completion of the proposed pipeline segments would take approximately three months to complete. As concluded in the EIR, aspects of the Proposed Project associated with pipeline installation are solely addressed during construction activities. Proposed pipelines would be underground and therefore would either not be seen or would result in very small, incremental visual changes to affected landscapes and viewers and would therefore be considered to have a less-than-significant impact on visual resources.
- **B5-279** With the exception of short-term impacts associated with night lighting during construction, the EIR concludes that short-term and temporary visual impacts due to construction of proposed facilities would be Class III (adverse but less than significant) and, therefore, no mitigation is required.
- **B5-280** Please refer to response B5-255.

- **B5-281** Please refer to response B5-255.
- **B5-282** The baseline used in the cumulative analysis is presented in the EIR, Section F.4, Cumulative Impacts. As discussed in Section F.4, for the purposes of this cumulative impact analysis, a list of projects that are in the same immediate vicinity and are expected to be constructed during the same time period as the SNGS Facility, has been used in accordance with CEQA Section 15130(b)(1). These projects and their approximate locations are shown in Table F-1. Projects that are completed, or are in operation, are considered part of current baseline conditions discussed by issue area in Section D of the EIR. Analysis of cumulative impacts that may result due to these projects and evaluation of the Proposed Project's contribution to such impacts is presented in Section F.4. The EIR evaluates each impact category with a full discussion of the Proposed Project's potential impacts coupled with these additional cumulative projects. Additional mitigation related to climate change and cumulative impacts were included in Section F of the EIR. As evaluated in the analysis, the EIR determined that no additional cumulative impacts would result that warranted additional mitigation targeted directly at such impacts. The cumulative impact section is complete and complies with CEQA.

B5-283 Please refer to response B5-282.

The comment set its own determination of what the cumulative impact analysis' range should be, including "for land use, recreational resources, and population and housing impacts, the geographic scope of the cumulative impact analysis should include *all past, present, and probable future projects within the County and City.*" There is no justification for such extreme measures.

The Proposed Project is a depleted gas field reservoir that will provide an underground natural gas storage area, with a wellhead site, compressor station, and buried interconnection pipelines. The natural gas will be stored approximately 3,800 feet below the ground surface. The project's potential impacts are not substantial and do not extend significantly beyond the immediate project area. Therefore, there is no compelling reason as to why the chosen cumulative projects are insufficient in regards to the geographic scope. The specific geographic area was evaluated and determined to be sufficient based upon the magnitude of the Proposed Project's potential to react with other potential projects. The EIR under Table F-1 lists each cumulative project, project type, project description, and project location. These locations represent projects that may have a potential cumulative effect along with the Proposed Project. Consideration of the study area basically evaluated any and all projects within a 1-mile radius of the Proposed

Project site boundaries. It was determined that this was a reasonable area given the specific project impacts and the surrounding urban setting with little development within the area. The City of Sacramento was also consulted as to additional projects in the area that may be applicable on a cumulative basis. Extending the geographic scope as proposed by the commenter would add little to the cumulative impact evaluation beyond the projects evaluated in the EIR.

B5-284 The EIR provides a valid analysis of the cumulative air quality impacts of the Proposed Project. The cumulative impact analysis was conducted using the method recommended in the SMAQMD Guide. This method relies on a determination of whether the project would result in ROG, NO_x , or PM_{10} emissions greater than those that would occur if the site were developed in accordance with the land use designation in the local general plan. As discussed in the EIR, the Proposed Project's emissions would be less than those that would occur under the general plan.

Further evidence supporting this conclusion is found in the 2009 update to the SMAQMD Guide. The 2009 SMAQMD Guide states that the Sacramento Valley Air Basin is a nonattainment area for ozone and particulate matter due to the cumulative emissions from development in the air basin. Thus, the test for CEQA purposes is whether a project's emissions would be cumulatively considerable. The 2009 SMAQMD Guide states that if a project's operational emissions do not exceed the applicable ozone precursor project-level thresholds, then "the project would not be considered cumulatively considerable, and would be less than significant for this cumulative impact." As shown in the EIR, the Proposed Project's operational emissions of NO_x and ROG were less than the applicable thresholds.

We disagree with the commenter's assertion that the Proposed Project's emissions result in cumulatively considerable impacts simply because the EIR for City of Sacramento 2008 General Plan concludes that the emissions resulting from development under the General Plan are significant and unavoidable. The commenter does not provide a basis as to why *any* project within the City of Sacramento would result in a cumulatively considerable contribution to cumulative air quality impacts.

B5-285 The comparison of the Proposed Project's greenhouse gas emissions to statewide emissions was not used for the purpose of concluding that the Proposed Project has a less-than-significant impact on global climate change. It was provided for informational purposes. As described in the EIR, the evaluation of the Proposed Project's impact was not based on a quantitative analysis relative to a numerical

threshold. Please refer to response B5-134 regarding the cumulative impacts on global climate change.

The EIR concludes that the Proposed Project's impact to global climate change would be less than significant with mitigation because it would not impede or conflict with the emissions reduction targets and strategies prescribed in or developed to implement AB 32.

- **B5-286** Comment noted. The EIR evaluated all relevant material and expert documentation and conservatively evaluated all potential impacts on behalf of the CPUC. The EIR was evaluated independently of SNGS, LLC and the PEA. The EIR is a complete document that allows for full review by the public and the lead agency. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-287** Comment noted. The EIR evaluated all relevant material and expert documentation and conservatively evaluated all potential impacts on behalf of the CPUC. The EIR was evaluated independently of SNGS, LLC and the PEA. The EIR is a complete document that allows for full review by the public and the lead agency. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-288** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required
- **B5-289** Exhibits 1 through 6 have been noted. These exhibits do not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-290** Comment noted. Please see responses B5-291 through B5-302.
- **B5-291** The EIR does identify the potential significant impacts associated with the storage of natural gas within the Florin Gas Field and considers this impact significant and unavoidable. However, Dr. Robertson's examples cite incidents in different types of fields including salt caverns and oil and gas fields that presumably have a greater instance of leakage than gas fields.
- **B5-292** Section D.5 of the Final EIR, Geology and Soils, has been modified to provide more detail on the geology of the site. This addition to the EIR does not raise

important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

The geological analysis does not rely solely on the applicant's Ryder Scott material, but rather on a number of sources. The Draft EIR notes the potential for gas migration and considers this a potentially significant impact.

- **B5-293** Dr. Robertson's comments are noted. The EIR notes that the structure of the Florin Gas Field is not well known. Although there have been several models prepared for the Florin Gas Field, these models have not been verified with field data. This is the primary reason that a potentially significant impact associated with gas migration is identified in the EIR.
- **B5-294** There is debate and conflict in the interpretation of the geological data as to whether seismic or other data indicate that a fault exists within the Florin Gas Field. It is likely that any fault is inactive and the impact of such a fault is debatable relative to the release of gas. The increase in pressure associated with the proposed gas storage project may either close the fault or reopen it. In either case, we identify the potential leakage of gas from the reservoir as a significant impact.
- **B5-295** There is a disagreement among experts, but there appears to be substantial vertical permeability.
- **B5-296** Please see response B5-297 regarding the pressures. There appears to be ample pressure for injection.
- **B5-297** Dr. Robertson has an error in his logic and calculations. The pressure gradient of water is not 62.4 psi/ft. We suspect that he has confused the density of pure water with the pressure gradient. The pressure gradient of water is calculated at 0.43 psi/ft, which would equate to a pressure requirement for a 250-foot column of water of 108 psi, rather than 15,600 psi as stated by Dr. Robertson.
- **B5-298** There is a disagreement among experts. Dr. Robertson's calculations do not appear to correlate with the quantity of gas extracted from the Florin Gas Field.
- **B5-299** Please refer to response B5-183.
- **B5-300** Methane in gas fields is not pure methane but a mix of constituents, including carbon dioxide, oxygen, water vapor, and other naturally occurring non-toxic

compounds. Since there are no records of the field containing BTEX or H_2S , this comment that the field contains these substances is purely speculative.

- **B5-301** Please refer to previous responses.
- **B5-302** Qualifications are noted. This comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-303** Comment noted. Please refer to responses B5-304 through B5 309.
- **B5-304** Dr. Shlemon is correct in stating that there are Pleistocene-age gravel channels of the ancestral American River that may overlie all or portions of the Florin Gas Field and underlie the surface sites to be utilized for the gas storage facility infrastructure. In all cases, these gravel channels are less than 100 feet in thickness, and are shallow with respect to ground surface, that is, less that 200 feet below land surface.

These fluvial gravels fill relatively narrow Pleistocene flow channels, and are capped by fine-grained sand and silt outwash or overbank deposits.

If stored natural gas from the Proposed Project were to migrate upwards through the 3,800 feet of stratified sedimentary formations that overlie the Florin Gas Field, it would be possible for the gas, either as bubbles, or as dissolved gas, to migrate laterally for substantial distances within the Pleistocene gravel channels. However, this is an extremely unlikely scenario, unless it is assumed that the SNGS, LLC operator, through error or intent, grossly over pressurizes the storage reservoir, and that no monitoring and testing, as required by DOGGR, is done to ensure that the injected gas remains within the storage reservoir.

Mitigation for such an unlikely occurrence could include subsurface exploration to locate the area underlying the gravel channel that is conveying stored gas leakage, and to drill recovery wells to intercept the gas, in addition to installing wells to recover gas within the gravel channel.

B5-305 Dr. Shlemon is correct in stating that the stratigraphy underlying the SNGS surface facilities and overlying the Florin Gas Reservoir is complex. There are fluvial gravel channels within the Fair Oaks formation, underlying the Riverbank Formation, and in addition there are continental channel fills within the Mehrton formation, under the Fair Oaks. All of these deeper features occur within the upper 500 feet of alluvium underlying the project area. For gas leakage from the reservoir to reach these deposits, it must make its way through substantial

thicknesses of indurated shale deposits. It is considered extremely unlikely that this could occur, given that DOGGR will be requiring rigorous periodic testing and monitoring to ensure that the gas is contained within the intended reservoir storage zones.

- **B5-306** Please refer to responses B5-304 and B5-305.
- **B5-307** It is acknowledged that because the Proposed Project site is located in California, seismic hazard is an important issue. The current requirements for permitting and engineering design of the project surface infrastructure are governed by the local building officials who implement California Building Code (CBC) 2007, the current standard, which includes detailed requirements dealing with seismic design. The regulations and practice surrounding proper engineering design for foundations and structures to withstand earthquake vibration forces is evolving. It is quite likely that by the time the SNGS facility is built, updated seismic design requirements will be adopted, for instance in the upcoming CBC 2010.

When the Proposed Project actually proceeds to engineering design beyond the conceptual level, a detailed earthquake hazard study will be performed, under the direction of the local building officials and perhaps consultant experts they may retain. From this work, project seismic vibration levels, frequencies, and shaking duration will be specified.

With respect to the presence of unknown faults within the Florin Gas Field, it is acknowledged that it is possible that such features exist. Furthermore, it is unlikely that in California, a gas reservoir or oil field could be found that is completely free of faults and/or fractures. The oil and gas industry operates extraction and storage projects using these imperfect reservoirs on a day-to-day basis as a routine matter. For the petroleum and/or natural gas to be naturally trapped in these reservoirs, the fault zones and fractures must remain effectively sealed to the stored resource for geologic time. This implies extremely slow rates of seepage upwards through the fault zones and/or fractures. The minimal rate of leakage can most likely be attributed to the confining pressure at depth maintaining the faults and fractures in tight closure, due to the slight flexibility of rock at these depths.

- **B5-308** Please refer to responses B5-304 and B5-305.
- **B5-309** Qualifications are noted. This comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **B5-310** Comment noted. Please see responses B5-311 through B5 322.
- **B5-311a** Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-101 through B5-109 regarding specific responses to comments raised on piecemealing and adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines.
- **B5-311b** Please refer to response B5-183.
- **B5-312** The EIR considered the potential of gas migration a significant and unavoidable impact due to the lack of information on the reservoir and the potential for leakage. The commenter's assertion that a 5.0-magnitude earthquake in the area would result in cracking of the bedrock is speculative and not supported by any modeling or other information.
- **B5-313** Mitigation Measure HAZ-2bi, which required installation of a 75-kilowatt diesel emergency generator at the compressor station, has been revised in the Final EIR to require a natural gas-fueled emergency generator. This change will avoid the concerns about emissions of diesel particulate matter and associated health impacts. Nonetheless, a natural gas generator would also produce air pollutant and toxic air contaminant emissions. The applicant has provided specifications and emissions data for a Cummins 100-kilowatt emergency generator. Based on operation of similar generators at industrial facilities, the emergency generator is not expected to be operated more than 50 hours per year for maintenance and testing and standby use. The air quality and health-related impacts of this generator have been evaluated at a screening level and reported in the Final EIR. The analysis demonstrated that the health impacts resulting from emissions of toxic air contaminants from the emergency generator, when added to those resulting from the glycol dehydration unit, would not exceed the SMAQMD significance threshold of ten in one million at sensitive receptors. In addition, the criteria pollutant emissions from the emergency generator would not result in violations of the California Ambient Air Quality Standards. No new significant impacts were identified. These changes to the EIR do not change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-314** The EIR discusses the health effects and attainment status of particulate matter (PM_{10} and $PM_{2.5}$), both of which are nonattainment pollutants with respect to the National (PM_{10} only) and California Ambient Air Quality Standards (PM_{10} and $PM_{2.5}$). The EIR further evaluates the impacts of PM_{10} emitted during construction using the screening approach provided in the SMAQMD Guide. Using this approach, it was concluded that the construction of the Proposed Project would result in a less-than-significant impact. Accordingly, no additional mitigation is required. Nonetheless, APMs 3(a), 3(c), 3(e), and 3(f) would provide additional mitigation for both PM_{10} (primarily from fugitive dust) and $PM_{2.5}$ (from fugitive dust and construction equipment exhaust).
- **B5-315** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-316** The EIR does address the components of the project as required by CEQA and addresses the impacts that may occur to the population in the area.
- **B5-317** The pipeline risk analysis addresses the impacts of vandalism to the pipeline analysis. A security plan will also be provided for the project. Although terrorism is a possibility, many other types of facilities would be more prone to such an attack.
- **B5-318** The EIR does address the impacts of radiant heat and potential human exposure. The commenter fails to consider that people normally exposed to lower levels of radiant heat normally remove themselves from the area before serious injuries occur. Additionally, structures, vehicles, and even clothing provide protection.
- **B5-319** In response to this comment, Section D.6 of the Final EIR has been modified to provide more information on this issue. It should be noted that Mitigation Measure HAZ-1c*ii* has been modified to stipulate that methyl mercaptan will be transported at night to avoid impacts to schools. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-320** The pipeline safety analysis used generally accepted methods to determine mortality and risk of pipeline failures. These are used by such agencies as the California Department of Education and other agencies involved in analysis of pipeline safety.

- **B5-321** Comment noted. Section E of the EIR, Comparison of Alternatives, subsection E.3, Environmentally Superior Alternative (for the gas fields), states that the EIR analysis indicates that the Snodgrass Slough Gas Field alternative would rank as the environmentally superior alternative, as it would develop the Proposed Project within a largely agricultural area that is currently undeveloped. Under the Snodgrass Slough Gas Field alternative, the significant and unavoidable (Class I) short-term construction noise impacts would be reduced to less than significant with mitigation (Class II). Due to the location away from dense population centers, this alternative with mitigation as presented in Section D.6 of this EIR would also reduce public health and safety significant and unavoidable (Class I) impacts to less than significant (Class II). Due to the alternative's location away from a dense population center, this alternative would reduce significant and unavoidable (Class I) impacts to groundwater resources. However, while impacts to groundwater would be reduced, they would remain significant and unavoidable (Class I). Implementation of this alternative would increase short-term construction-related impacts to air, soil erosion, cultural and biological resources, hydrology/water quality, and agriculture due to the increased length of connecting pipeline required to connect to SMUD's natural gas pipeline system. While the EIR analysis indicates that short-term construction impacts generated by this alternative are significant, they can be mitigated to less than significant (Class II). Therefore, from a strictly environmental perspective, the Snodgrass Slough Gas Field alternative ranks as the environmentally superior alternative, as it would reduce short-term construction noise impacts from significant and unavoidable (Class I) to less than significant with mitigation (Class II). In addition, due to its location away from dense population centers, public health and safety impacts (Class I) would be reduced to less than significant with mitigation (Class II). Also, because of this alternative's location away from dense population centers, the Class I impact to groundwater contamination of a municipal aquifer would be reduced; however, it would remain a Class I impact.
- **B5-322** Exhibit A, Health Risk Screening Analysis Proposed Sacramento Natural Gas Storage Project, Florin Gas Field Facility, dated March 25, 2008, has been noted. Exhibit A does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-323** Exhibit B, Qualifications, is noted. This exhibit does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-324** Direct testimony of Dr. Harry West has been noted. Testimony does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-325** Direct testimony of Dr. Jerry Havens has been noted. Testimony does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-326** Rules and Regulations Department of Housing and Urban Development Office of the Secretary 20 CFR Part 51 has been noted and does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-327** Comment noted. Please refer to responses B5-328 through B5 339.
- **B5-328** The impacts to wetlands were described in the EIR in Section D.3, Biological Resources,_ since it was determined that it was most appropriate to describe and map those resources in that section. It was not repeated in Section D.7, Hydrology and Water Quality, to avoid redundancy.
- **B5-329** In response to this comment, the Final EIR has been revised to correct the spelling of Solano County. This change to the EIR does not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-330** Morrison Creek has a number of beneficial uses, but the description of the resources in this portion of the creek is accurate in the EIR

In response to this comment, Table D.7-2 in Section D.7 of the Final EIR has been modified to include chlorpyrifos as a pollutant in Morrison Creek. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

B5-331 Section D.7.3.1 of the EIR, Definition and Use of Significance Criteria, provides the significance criteria used based on Appendix G to the CEQA Guidelines (14 CCR 15000 et seq.).

Section D.7 of the EIR, Hydrology and Water Quality, evaluates impacts due to potentially encountering groundwater during pipeline construction and

acknowledges that groundwater could be encountered during trenching and proposed HDD construction activities and that this impact is considered significant (Class II). This section presents Mitigation Measure H-5c, which states that if groundwater is encountered during the pipeline trenching or HDD, the site shall be dewatered prior to continuing construction. A National Pollutant Discharge Elimination System (NPDES) permit shall be obtained for proper disposal of water. Treatment may be required prior to discharge.

- **B5-332** Comment noted regarding APMs. As discussed in Section D.1 of the EIR, Introduction to Environmental Analysis, in the Proponent's Environmental Assessment (PEA), SNGS, LLC identified best management practices (BMPs) in Section 2.5.7 (SNGS, LLC 2007a), which have been incorporated in this EIR as APMs that would be implemented to avoid or reduce potential impacts from the Proposed Project. During the preparation of the EIR, these measures were assumed to be part of the Proposed Project and are not considered as CPUCrecommended mitigation measures. However, SNGS, LLC's APMs would be monitored by the CPUC as they will be compiled with the CPUC-recommended mitigation measures into the final mitigation monitoring, compliance, and reporting program, which will be completed upon adoption of the Final EIR.
- **B5-333** Mitigation measures for water quality impacts to surface waters are provided in Section D.7.3 of the EIR. No water quality impacts are anticipated to Elder Creek.
- **B5-334** Drilling mud will meet the requirements of DOGGR and other agencies for non-toxicity. No impacts from the drilling mud are anticipated.
- **B5-335** The runoff from the project will be small and only from the wellhead site and compressor station. Any increase in surface runoff will be small and not significant.
- **B5-336** .No impact to surface water is anticipated due to the small amount of surface water in the area and the isolation of the aquifers in relation to the surface waters. Therefore, further discussion requested by the commenter is not required or provided.
- **B5-337** Please refer to response B5-36.
- **B5-338** Since the Proposed Project will not use organophosphate base pesticides, no cumulative impacts would occur.

- **B5-339** Please see responses B5-328 through B5 339 for responses to specific issues raised. With regard to the availability of documents used in preparation of the EIR, please refer to response A11-2.
- **B5-340** Qualifications noted. This comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-341** Comment noted. Please refer to responses B5-343 through B5-934.
- **B5-342** Comment noted. Please refer to responses B5-343 through B5-934
- **B5-343** Comment noted. Please refer to responses B5-344 through B5-934.

Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-368 through B5-413 regarding specific responses to comments raised on the adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines.

- **B5-344** The analysis of the reservoir for the safety analysis is based on historical records and models since this is the best available information on the reservoir.
- **B5-345** Please refer to responses A11-22, A11-23, B5-82, B5-84, B5-86, B5-93, and B5-368 through B5-413 regarding specific responses to comments raised on the adequacy of the project description presented and evaluated in the EIR. As further discussed in these responses, the project description presented in Section B of the EIR provides sufficient information needed for the evaluation and review of environmental impacts of constructing and operating the Proposed Project pursuant to Section 15124 of the CEQA Guidelines.
- **B5-346** Please refer to response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-347** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-348** The EIR provides all pertinent information necessary to allow for meaningful public and agency review. New significant information is neither required nor is it

proposed to be added to the EIR and recirculation of the document pursuant to CEQA Guidelines, Section 15088.5 is not warranted.

B5-349 Please refer to response B5-345 with regard to the adequacy of the project description presented in the EIR.

The EIR evaluates the potential environmental impacts of the Proposed Project. The impacts identified were compared with predetermined, specific significance criteria, and were classified according to significance categories listed in each issue area. The same methodology was applied systematically to each alternative. A comparative analysis of the Proposed Project and the alternatives is provided in Section E of the EIR.

Once a significant impact was identified, diligent effort was taken to identify mitigation measures that would reduce the impact to a less-than-significant level. The mitigation measures recommended by this study are identified in the mitigation monitoring, compliance, and reporting table at the end of each individual area of environmental analysis (Sections D.2 through D.13 of the EIR). For a discussion of mitigation monitoring and reporting, refer to Section G.

- **B5-350** Please refer to responses B5-29 and B5-36 regarding the alternatives analysis conducted in the EIR. Also refer to responses B5-414 through B5-420 for specific comments raised on alternatives.
- **B5-351** Pursuant to CEQA Guidelines, Section 15125(a), "...an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective."

The section goes on to state that, "the description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives." Section 15125(c) also states that knowledge of the region is critical and special emphasis regarding rare or unique features in that region is required if the project as proposed will impact that rare or unique feature.

The environmental setting is what is utilized by the EIR in order to create an environmental baseline that will be used to evaluated the severity of the potential impacts and whether or not those impacts are potentially significant or not. (CEQA Guidelines, Section 15125(a)). No particular format for presenting the environmental setting is provided within the CEQA Guidelines.

The environmental setting used to determine the impacts associated with the Proposed Project and alternatives is based on the environmental conditions that existed in the project area in November 2007, at the time the Notice of Preparation was published.

The EIR provides all pertinent information necessary to allow for meaningful public and agency review. The environmental setting is first presented as an overview of the Proposed Project within the Draft project description under Section B.2.1, Project Location and Regional Context. Moreover, within the impact analysis in Section D, each pertinent section includes a complete environmental setting for the Proposed Project. The environmental setting covers both a local and regional perspective, as well as an identification of any unique or rare features as dictated by CEQA and appropriate case law. For example, Section D.3.1 of the biological resources section of the EIR, discusses a regional overview of the environment as applied to biological resources, special habitat management areas, vegetation communities and wildlife habitats in the project area, wetlands and waters of the United States, special-status plant and animal species, critical habitat, and wildlife corridors that may be impacted by the Proposed Project. Such a discussion fulfills the requirements for an adequate environmental setting for an EIR.

New significant information is neither required nor is it proposed to be added to the EIR and recirculation of the document pursuant to CEQA Guidelines, Section 15088.5 is not warranted.

- **B5-352** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-353** Please refer to response B5-345 with regard to the adequacy of the project description presented in the EIR and response B5-351 with regard to the environmental baseline.
- **B5-354** Please refer to response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.

- **B5-355** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-356** Changes in the SMUD pipeline are not reasonably foreseeable. The CPUC acknowledges that should the project result in substantial changes to the operation and maintenance of SMUD's natural gas pipelines or to other users that could result in environmental effects, subsequent environmental documentation and review may be required.

As stated in Section F.1.2 of the EIR, Growth Related to Additional Natural Gas Storage, the need for additional natural gas storage in California is reflected in the Governor's Energy Policy as well as in policy statements of both the California Energy Commission and the 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.

- **B5-357** Comment noted. Please refer to response B5-356.
- **B5-358** Comment noted. Please refer to response B5-356.
- **B5-359** Comment noted. Please refer to response B5-356.
- **B5-360** Comment noted. Please refer to response B5-356.
- **B5-361** As required by CEQA Guidelines (Section 15130 et seq.), the proposed SNGS Facility is analyzed in relation to other projects in the area resulting in impacts that are considered to overlap or interact in a cumulative manner with the impacts of the Proposed Project. It is important to consider the combined effects of all past, present, and reasonably foreseeable future projects to determine the cumulative effect of these projects on the region because, even though a single

project may have individually minor impacts, when considered together with other projects, the effects may be collectively significant. A cumulative impact, then, is the additive effect of all projects in the same geographic area. The project itself would have a significant cumulative impact if the project's contribution to the overall significant cumulative effect is of a cumulatively considerable magnitude.

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

- **B5-362** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-363** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-364** In response to this comment and others, Appendix B, *System Safety and Risk of Upset*, has been revised in the Final EIR to reflect changes in the project's scope that were made after the report had been written. Specifically, the 0.4-mile-long, 12-inch pipeline segment has been deleted from the analysis and the well casing diameter has been reduced from 20 inches to 8 inches in diameter. These changes and additions to the EIR do not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the State CEQA Guidelines.
- **B5-365** This comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-366** Please refer to response A11-13 with regard to availability of applicable studies.

- **B5-367** The commenter is correct that the major information on the reservoir is based on modeling. The abandonment of the well is based on information from the records of DOGGR, the state agency responsible for this activity.
- **B5-368** Comment noted. Figure B-2 of the EIR shows the limits of the Florin Gas Field boundaries as provided by SNGS, LLC (SNGS, LLC 2007b) (delineated as a red boundary) and based on DOGGR gas field mapping (DOGGR 2007) (shown as a shaded boundary). The SNGS, LLC limits of the field boundary are based on modeling of the reservoir by Ryder Scott Company (Ryder Scott Company 2008). The DOGGR limits are based on more qualitative information from well drilling information and the location of historic wells in the field. The gas field, as modeled by Ryder Scott Company, is approximately 3,800 feet belowground surface and underlies approximately 379 acres in the City of Sacramento and the County of Sacramento (approximately 164 acres in the city and 215 acres in the county based on the SNGS-provided boundary). The acreage of the DOGGR boundary is approximately 152 acres (108 acres in the city and 44 acres in the county). Several land uses are located above the field, including residential, industrial, and commercial (including the former Army Depot), and park uses (Danny Nunn Park). The EIR analysis is based on the SNGS, LLC gas field boundary, which as shown in Figure B-2 of the EIR, encompasses the majority of the DOGGR limits.

The extent of the reservoir modeled by the applicant was the best available information on the size of the reservoir.

- **B5-369** Comment noted. Please refer to response B5-368. As described in response B5-368, the limits of the Florin Gas Field were not only determined from information submitted by the applicant but also from information obtained from DOGGR.
- **B5-370** Please refer to response B5-297. Dr Robertson was in error in calculating the anticipated pressures by many magnitudes. Since the site functioned as a gas field for several years, his opinion is highly speculative and most likely wrong.
- **B5-371** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-372** The information presented on in Section B of the EIR is essentially correct and is based on both actual field records and modeling. Section B, Description of the Proposed Project, has been slightly modified in the Final EIR. These changes to the EIR do not raise important new issues about significant effects on the

environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-373** Comment noted. Please refer to response B5-368. As described in response B5-368, the limits of the Florin Gas Field were not only determined from information submitted by the applicant but also from information obtained from DOGGR.
- **B5-374** In Section D.12.3.3 of the EIR, Transportation and Traffic Impact Analysis, Impact T-4 considered the project's impact on rail operations. As stated in the EIR, the Proposed Project would use HDD methods to direct the pipeline (segment one) beneath Elder Creek Road and the UPRR tracks and no impacts to rail operations are anticipated. UPRR requires projects proposing directional bore crossing beneath UPRR right-of-way to obtain a Crossing Permit. In addition, the Proposed Project would be required to comply with the *Interim Guidelines for Horizontal Directional Drilling (HDD) under Union Pacific Railroad Right-of-Way*. Within Depot Park, tracks previously used by the U.S. Army have since been abandoned and trenching along or within the previous right-of-way would not trigger any specific requirements.
- **B5-375** The pressures described in the EIR are based on both historical data and modeling. There is no reason to expect that gas pressures have substantially changed in the years since the field has been depleted.
- **B5-376** Figure B-4 of the EIR was illustrative in nature and not meant to depict the modeling or exact field conditions.
- **B5-377** Impact to the transmission lines from a torch fire would be easily repaired and would not result in an increased level of mortality due to the localized nature of such an event. A torch from the manifold would most likely not reach the wires due to the smaller sizes of the pipes.
- **B5-378** Figure B-4 of the EIR was not intended to provide a detailed picture of the field, but rather to provide an overall conceptual diagram of the formation.
- **B5-379** Implementation of the Proposed Project will result in production of some water with some gas liquids would be re-injected into the reservoir. The tanks and reinjection will be subject to DOGGR regulations and inspections. Contrary to the commenter's suggestion that there will be large quantities of produced water, which are characteristic of water-driven oil, the gas storage fields will produce much less water and will be re-injected. Prior to storage and release of gas, the

gases will be tested to ensure that they meet gas supply standards. There is no indication that the Florin Gas Field contained major contaminants, such as H_2S .

B5-380 The proposed pipeline facilities are required by law to be operated and maintained in accordance with Title 49 Code of Federal Regulations, Part 192 (49 CFR 192). 49 CFR 192, Subpart L provides the requirements for operations, including requirements for operations and maintenance manuals, which would include pigging operations. Subpart N provides the requirements for the qualification of pipeline personnel performing this work. Before a pig is loaded into the pig launcher, the pig launcher and associated piping are isolated from the pipeline by closing the associated valves. The natural gas within the pig launcher is normally routed through carbon canisters or other device. The pig is then loaded into the pig launcher. After the launcher is closed, the proper valves are opened to "launch" the pig and transport it through the pipeline along with the natural gas. The pig receiving process is similar, with the volume of natural gas within the receiver being vented to the atmosphere after the pig has been received

Water storage tanks will store water and other liquids prior to reinjection into the reservoir. Liquids treatment are not anticipated since they will be re-injected into the same formation or taken by a permitted waste disposal operator. Any natural gas liquids from pigging will also be re-injected.

- **B5-381** The Proposed Project has not completed final design and detailed plans and specifications are not available. The project is represented by plot plans and preliminary plans.
- **B5-382** The applicant has only provided preliminary plans. Detailed plans will be provided and submitted to the City of Sacramento during the permitting process.
- **B5-383** The compressor ratings used in the project description are maximum capacity of the compressors, and the units are correct. The ratings of the compressors do not mean that they will be operated at that capacity, but would be operated at substantially less than full capacity. The third compressor would not necessarily add to the compression capacity, but would be used as a spare during maintenance.
- **B5-384** The commenter is correct; the confinement of natural gas within the compressor building would be sufficient to create an explosion should a release occur that resulted in the formation of a combustible mixture and should an ignition source be present. However, there are significant safeguards required by applicable laws, ordinances, regulations, and standards that would help protect the public. The

most significant exposures would be to the applicant's employees and contractors inside the building. Since site access would be restricted, the public would not be present inside the compressor building. Furthermore, since adequate confinement does not generally occur outside the building, the public would not be exposed to significant over-pressure levels (as stated in Section 6.4.1 of EIR Appendix B, System Safety and Risk of Upset).

The compressor station is jurisdictional to the United States Department of Transportation. The frequency of releases, injuries, and fatalities resulting from compressor stations are included in the data used to develop the qualitative risk assessment and the baseline incident rate used in the quantitative risk assessment presented in the EIR in Appendix B, System Safety and Risk of Upset. As a result, the risks posed to the public by the compressor station are included in the findings presented in the EIR.

Compressor building construction requirements and safeguards are regulated by Title 49, Code of Federal Regulations, Part 192 (49 CFR 192), the California Building Code (CBC), the California Fire Code, and other laws, ordinances, regulations, and standards. Federal regulations require the following:

- The compressor building must be located to minimize the impact of fire on structures on adjacent property not under the control of the operator (49 CFR 192.163(a)).
- Space around the compressor building must be adequate to allow the free movement of firefighting equipment (49 CFR 192.163(a)).
- Compressor buildings must be constructed of noncombustible materials (where piping is greater than 2 inches in nominal diameter) (49 CFR 192.163(b)).
- Any main compressor building must have at least two unobstructed exits (per floor) with panic hardware on the doors that open outwardly (49 CFR 192.163(c)).
- All escape routes from the buildings must be unobstructed (49 CFR 192.163(c)).
- All fenced areas around compressor buildings must have two exits providing escape to a place of safety (49 CFR 192.163(d)).
- All fenced areas less than 200 feet from the compressor building must have gates that open outwardly, and when occupied, must be capable of being opened without a key (49 CFR 192.163(d)).

- All electrical equipment and wiring must conform to National Electric Code NFPA 70 (49 CFR 192.163(e)).
- The station must be equipped with an emergency shut-down system that isolates the station piping from the incoming and outgoing pipeline, shuts down any gas-fired equipment, blows down the station piping to a safe location, and allows operation from at least two sites outside the gas area of the station near emergency egress gates and not more than 500 feet from the limits of the compressor station. This ESD must not shut down emergency operating power for safety systems and emergency egress lighting (49 CFR 192.167(a)).
- The station piping must be protected by a pressure relief system or other suitable protective devices of sufficient capacity and sensitivity to ensure that the maximum operating pressure is not exceeded by more than 10%. Each vent line that exhausts gas from a pressure relief valve of a compressor station must extend to a location where the gas may be discharged without hazard (49 CFR 192.169(a)(b)).
- Each compressor station must have adequate fire protection facilities. If fire pumps are part of these facilities, their operation must not be affected by the emergency shut-down system (49 CFR 192.171(a)).
- Each compressor station prime mover, other than an electric motor, must have automatic shut-downs to protect against exceeding the maximum safe speed of the prime mover or compressor (49 CFR 192.171(b)).
- Each compressor unit within a compressor station must have a shut-down, or alarm device, that operates in the event of inadequate cooling or lubrication of the unit (49 CFR 192.171(c)).
- Each natural gas powered prime mover (engine) that operates with pressure injection must be equipped so that stoppage of the engine automatically shuts off the fuel and vents the engine distribution manifold. The muffler of a gas engine must have vent slots, or holes, in the baffles of each compartment to prevent gas from being trapped in the muffler (49 CFR 192.171(d)(e)).
- Each compressor station building must be ventilated to ensure that employees are not endangered by the accumulation of gas in rooms, sumps, attics, pits, or other enclosed places (49 CFR 192.173).
- Natural gas compressor station buildings must be equipped with fixed gas detection and alarm systems (49 CFR 192.736).

The CBC has additional, and in some cases overlapping, requirements:

- The building must be constructed according to the setback guidelines established in the CBC and CFC for the appropriate occupancy classification.
- Local ordinances regarding fire equipment turning radii, dead-end/turnaround requirements also apply to the spacing requirements.
- The building structure must be constructed according to the requirements of the CBC for the building occupancy type (either F-1 or H-2) and acceptable noncombustible materials (building construction Types I or II), as defined by the CBC.
- The building must have two exits provided per CBC Chapter 10. The intent is that a person must be able to escape immediately from the building by proceeding in a direct path to a door that will swing open in the direction of egress (outward).
- The escape routes from the buildings must be designed and reviewed according to the requirements of CBC Chapter 10, Means of Egress.
- The compressor station must be designed and built with fire suppression equipment that could reasonably be expected to extinguish a natural gas fire within the building due to equipment failure or other accidental release. The sizing of fire suppression systems must follow the guidelines of CBC Chapter 9, the California Fire Code, NFPA 13 Automatic Sprinkler Systems Handbook, NFPA 58 Liquefied Petroleum Gas Code, and NFPA 59 Utility LP Gas Plant Code (NFPA 58 and 59 Required by 49 CFR 192.11).

Depending on the volume of gas within the closed system housed within the compressor building, the CBC and CFC provide additional building requirements. CBC Section 307 covers high-hazard (Group H) structures and Section 306 covers factory structures (Group F). The building requirements are commensurate with the level of risk posed within the structure, with Group H structures being the more stringent.

Buildings with flammable gas volumes in excess of the exempt limits listed in CBC Table 307.1(1), Maximum Allowable Quantity Per Control Area of Hazardous Material Posing a Physical Hazard, are considered Group H-2. Table 307.1 identifies an exempt limit of 1,000 cubic feet of flammable gas, at normal temperatures and pressures (14.7 psig at ambient temperatures). This volume may be increased by 100% if automatic sprinkler systems are installed. Due to the high

pressures of the piping system, the proposed compressor building is likely Group H-2.

Figure B-6 of the EIR shows a compressor building 35 feet wide by 110 feet long. The EIR text states, "the compressors would be housed in a building approximately 50 feet by 110 feet and would stand approximately 24 feet high." The discrepancy in the building width is noted. However, it does not affect the hazards posed by the project.

In response to this comment, the text of Section 2.1.4 of Appendix B of the Final EIR has been revised to include a discussion of the regulations and code requirements applicable to compressor buildings. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA guidelines.

Please refer to response A11-13 regarding the adequacy of the EIR and recirculation.

- **B5-385** A description of the potential odorizing equipment at the wellhead site is provided in the project description.
- **B5-386** Blow-down of gas will not be proposed or required due to the variation in pressures between the SMUD line and the project pipeline. Any requirements for release of gas during normal operations would be accommodated by letting gas flow back into the SMUD line. The silencers are part of a system for emergency release of gas pressure. This could be used in the event of a pipeline rupture where rapid depressurization of the pipeline would be required.
- **B5-387** The produced water system is adequately addressed for this stage of project permitting. The overall system will require approval by a number of agencies, including DOGGR.
- **B5-388** The commenter is correct that the well site is the same for both types of injection wells. There is a possibility that an injection well could be used for gas injection or vice versa, but the overall number of wells would be the same and the impacts would be the same.
- **B5-389** Description of the tanks is provided in Section B of the EIR. Other than the tanks holding potential gas liquids for reinjection, the tanks are not part of the pig launching or receiving system.

- **B5-390** Detailed designs of drainage systems will be provided as a part of the final design and permitting process.
- **B5-391** Compressors will all be electrically powered with a back-up emergency gas-fired generator. There are no proposals for fueled compressors. The air quality impacts associated with the generator are described in Section D.2 of the EIR.
- **B5-392** The spare compressor is for back-up during maintenance. Please see response B5-391.
- **B5-393** Please refer to response B5-389.
- **B5-394** Please refer to response B5-389.
- **B5-395** The description of the proposed drilling activities accurately reflects the process for the drilling of the wells.
- **B5-396** The existing wells were abandoned and plugged to DOGGR specifications. As part of the permitting process, DOGGR will require a conditions report from the applicant to ensure that the well plugging is in the proper condition. Re-drilling of the abandoned wells is not part of the Proposed Project.
- **B5-397** Construction of monitoring wells will not be a major operation for the Proposed Project. These wells will be smaller, shallower, and require small portable units.
- **B5-398** Additional geophysical surveys are not anticipated as an element of the Proposed Project.
- **B5-399** The description of the drilling process reflects the activities associated with drilling of wells.
- **B5-400** The commenter is correct, pipe strings, mud, casings, and cement will be used, as is typical of drilling for oil and gas wells. This was described in sufficient detail and the traffic associated with this process was assessed in Section D.12 of the EIR.
- **B5-401** Grading plans have not been prepared at this stage of project planning.
- **B5-402** Impacts to these resources were based on disturbance to the project footprints of components. It is not necessary to have detailed grading plans to project these impacts.

- **B5-403** Detailed designs have not been completed at this stage of project planning and are not needed to determine impacts.
- **B5-404** The leak monitoring systems and odorization of the natural gas are intended to facilitate the identification of any components that may leak, even in very small quantities. These systems do not prevent or reduce the likelihood of any such leakage; they simply facilitate early detection. Odorization is required by Title 49 Code of Federal Regulations, Part 192 (49 CFR 192).

The proposed pipeline facilities are required by law to be operated and maintained in accordance with 49 CFR 192. 49 CFR 192, Subpart L, provides the requirements for operations, maintenance, and emergency response, including the requirements for procedure manuals covering these topics. The project has been evaluated based on the applicant preparing procedures in accordance with these requirements prior to beginning operation, as required by the federal regulation.

- **B5-405** The project was evaluated based on the fact that it would be designed, constructed, operated, and maintained in accordance with 49 CFR 192 and CPUC General Order Number 112. The applicant proposed measures considered in the analysis are presented in Table B-5 of the EIR. The impacts and the proposed mitigation measures are summarized in Table ES-1 of the EIR.
- **B5-406** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-407** Pressure is the operative measurement for well operation, not volume. The only water that will be injected will be from any water vapor contained in the stored gas.
- **B5-408** This comment is confusing and does not reflect how the gas field is operated. The buffer, or cushion gas, in the depleted field is not recoverable and there are no rights per say for this gas. Rates for the stored gas will be determined by the CPUC and are not part of the CEQA process.

Contrary to the commenter's statement, DOGGR has full jurisdiction over the development and storage of the gas and the operation of the field. However, they do not own the gas itself.

B5-409 Use of the site for CO_2 injection or other uses is not proposed after the storage project is no longer in operation.

- **B5-410** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-411** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR
- **B5-412** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR
- **B5-413** Please refer to response A11-13 with regard to availability of applicable studies.
- **B5-414** Please refer to responses B5-29 and B5-36 regarding the alternatives analysis conducted in the EIR.
- **B5-415** Please refer to response B5-33a regarding feasibility of alternatives considered.
- **B5-416** As described in Section C.5.2 of the EIR, the project design alternatives consisted of two alternative compressor station locations, and one alternative well location. The alternative compressor station sites were eliminated because they were determined not to reduce significant and unavoidable impacts of the project. The one alternative well site was eliminated from further evaluation as it was determined not to be feasible.
- **B5-417** Comment noted. Please refer to responses B5-29 and B5-36 regarding the alternatives analysis conducted in the EIR
- **B5-418** Please refer to response B5-416.
- **B5-419** As shown in Figure B-2 of the EIR, the proposed wellhead site is located near the center of the Florin Gas Field. Please refer to response B5-416.
- **B5-420** Please refer to response A11-13 with regard to availability of applicable studies.
- **B5-421** Comment noted. The EIR provides all pertinent information necessary to allow for meaningful public and agency review. New significant information is neither required nor is it proposed to be added to the EIR and recirculation of the document pursuant to CEQA Guidelines, Section 15088.5 is not warranted.
- **B5-422** Please refer to response B5-351 with regard to the environmental setting and baseline used and a discussion of appropriate standards for an adequate

environmental setting. The comment appears to state that since the environmental setting is deemed incomplete and insufficient, then appropriate review and evaluation of any impact assessments, mitigation measures, or compliance cannot be performed. As previously stated, the environmental setting covers both a local and regional perspective, as well as an identification of any unique or rare features as dictated by CEQA and appropriate case law at the time the Notice of Preparation was published.

New significant information is neither required nor is it proposed to be added to the EIR and recirculation of the document pursuant to CEQA Guidelines, Section 15088.5 is not warranted.

- **B4-423** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-424** General reconnaissance-level special-status species surveys were conducted in November 2006 pertaining to project components within the City of Sacramento. In addition, fieldwork for the jurisdictional delineation was conducted in October 2007 for the project area within the City of Sacramento. Therefore, recent field investigations have been used in conjunction with a proper literature review to provide a complete and adequate assessment of biological resources related to the Proposed Project.
- **B5-425** Impacts identified as potentially significant are not proposing non-compliance with established ordinances, regulations, and laws as part of the Proposed Project. Rather, references to compliance with appropriate ordinances, regulations, and laws within mitigation measures are used to verify that the mitigation measures will adequately mitigate for potential impacts in accordance with such ordinances, regulations, and laws.
- **B5-426** Where the EIR identifies future biological studies as part of mitigation, it also clearly supplies sufficient, adequate, and complete details to ensure adequate mitigation of any potential impacts. For example, a protocol-level vernal pool fairy shrimp survey is proposed as mitigation for impacts to vernal pool fairy shrimp. Specific mitigation measures for occupied or assumed-occupied areas are provided, including fencing and monitoring. In addition, coordination with a clearly identified organization, the U.S. Fish and Wildlife Service, is proposed. Finally, the measure also identifies mitigation where avoidance is not feasible. Therefore, in cases where field investigation is proposed as a part of mitigation, adequate detail is provided in the EIR to ensure that mitigation following studies

will adequately mitigate for any potential impacts that present themselves after investigation by clearly identifying potential impacts and detailing corresponding mitigation measures.

- **B5-427** Please refer to response B5-332 with regard to APMs.
- **B5-428** Please refer to response B5-332 with regard to APMs.
- **B5-429** Please refer to response B5-332 with regard to APMs.
- **B5-430** Please refer to response B5-332 with regard to APMs.
- **B5 431** Please refer to response B5-332 with regard to APMs.
- **B5-432** The environmental management plan, restoration plan, and spill contingency plan are all mitigation requirements and will be completed during project permitting. In response to this comment, APM 12 has not been modified to describe the types of sensitive habitats since this was an applicant-proposed measure.
- **B5-433** Although the routes, locations, and existing profiles/elevation for jack/boring, jacking pits, trenching, and backfill piles are not provided in the EIR, the objective of returning to pre-construction grades and contours is clearly stated. Therefore, the grading proposed in the EIR can be assessed based on the grading objective rather than the manner in which this goal is attained. Although the actual seed mix for the various parts of the pipeline is not provided, the EIR does stipulate that the right-of-way be seeded with an appropriate seed mix composed of the appropriate mix of species.
- **B5-434** A pre-construction survey focused on the identification of Sanford's arrowhead would provide the information necessary to adequately mitigate for potential impacts to this species regardless of past surveys. In addition, the inadequacy of past surveys to identify this species due to rainfall and access restrictions has been recognized and Sanford's arrowhead is assumed present (refer to Section D.3.3.3 of the EIR).

The term "qualified botanist" implies a botanist that could competently identify the focal plant species. The EIR also defines the period of time when the phonology of the plant will allow for ready identification as March through May.

B5-435 In Section D.3.1.5 the EIR defines the habitat potentially supporting populations of Sanford's arrowhead by providing the habitat information for this species. Specifically, it is found in shallow freshwater marshes, swamps, and low-gradient

streams at elevations less than approximately 2,000 feet. Furthermore, this section identifies suitable habitat for this species on site by stating that Morrison Creek, west of the compressor station site within Depot Park, provides limited potential habitat for this species because the creek has a concrete low-flow channel and earthen levees. In addition, Section D.3.3.3 of the EIR provides the necessary details to assess the mitigation measure provided for Sanford's arrowhead by characterizing the potential impacts to this species. For example, it specifically states that impacts would occur during boring of pipeline segment one under Morrison Creek, and provides additional details characterizing potential impacts to this species. Finally, the EIR describes the "responsible agent" as the qualified botanist that would supervise the fencing of any populations found and would monitor these excluded areas throughout construction.

- **B5-436** Conducting the survey for Sanford's arrowhead during a period of time (March through May) when the phonology of the plant will allow for ready identification, as the EIR provides in Mitigation Measure B-1a, will maximize detection of this species.
- **B5-437** A protocol-level vernal pool fairy shrimp survey conducted by a qualified biologist at each potential wetland habitat prior to construction would provide the information necessary to adequately mitigate for potential impacts to these species regardless of past surveys. In addition, if the survey is not conducted, then it shall be assumed that each potential vernal pool contains these species, which would also adequately mitigate for impacts to these species. The EIR states that the survey would be protocol level, which implies that a qualified biologist hold a permit for conducting vernal pool fairy shrimp surveys as determined by the USFWS, the agency that issues these permits. Because vernal pool fairy shrimp are not plant species, the EIR does not state when phonology of these species will allow for ready identification as this is not applicable. The EIR does state that surveys would be protocol level. Therefore, the USFWS protocol for vernal pool fairy shrimp would be used to determine the appropriate timing of surveys.
- **B5-438** The terms "assumed," "avoided," "where possible," and "any necessary" are used as these terms are conventionally used and do not require additional definition. The EIR clearly states that the consultation shall be conducted with the USFWS to obtain any necessary permits or approvals if populations or assumed populations would be disturbed. Therefore, the USFWS would have an active role in determining and identifying the potential impacts and appropriate mitigation for vernal pool fairy shrimp.

- **B5-439** Mitigation Measure B-1b still provides specific measures, including fencing, monitoring, and HDD, to mitigate for potential impacts where such impacts cannot be fully quantified. In addition, because impacts cannot be fully assessed at this point in time, the EIR provides additional measures to thoroughly address the full range of potential impacts to these species. Specifically, the EIR states that 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. Therefore, although impacts in this case cannot be fully quantified, the measure is specific and thorough enough to provide an adequate assessment of significance and supply a complete mitigation measure to sufficiently mitigate any potentially significant impacts to vernal pool fairy shrimp.
- **B5-440** Surveys for giant garter snake conducted 24 hours before commencement of construction activities or potential activity would provide the information necessary to adequately mitigate for potential impacts to this species regardless of past surveys. Although Mitigation Measure B-1c does not directly state who would conduct the survey and does not state who determines "commencement" of construction activities, the EIR does state that consultation shall be conducted with the USFWS to obtain the necessary permits and approvals. Therefore, the USFWS would be the responsible agency involved in the mitigation of potential impacts to giant garter snake. In Section D.3.1.5, the EIR identifies potential habitat for giant garter snake, which is found in freshwater marshes, low-flowing streams, drainage ditches, and irrigation canals. This section also states that Morrison Creek could be considered potential habitat but lacks emergent herbaceous wetland vegetation.
- **B5-441** Consultation conducted with the USFWS to obtain the necessary permits and approvals can occur prior to surveys and therefore would not be constrained by the 24-hour period. In addition, because any occupied area shall be avoided by construction, additional protection measures that might take more time to prepare would not be necessary. Although Mitigation Measure B-1c does not directly state who would conduct the survey and does not state who determines "commencement" of construction activities, the EIR does state that consultation shall be conducted with the USFWS to obtain the necessary permits and approvals. Therefore, the USFWS would be the responsible agency involved in the mitigation of potential impacts to giant garter snake. In Section D.3.1.5, the EIR identifies potential habitat for giant garter snake, which is found in freshwater marshes, low-flowing streams, drainage ditches, and irrigation canals.

This section also states that Morrison Creek could be considered potential habitat but lacks emergent herbaceous wetland vegetation.

- **B5-442** The term "qualified herpetologist" was not used in the EIR. Surveys for giant garter snake would be conducted by someone able to identify the species and who is familiar with the methodology used to determine its presence/absence. Pre-construction surveys conducted 24 hours before commencement of potential construction activities would determine with greater accuracy the presence/absence of the species compared to surveys conducted over a longer time scale, so that any occupied area can be avoided by construction.
- **B5-443** Surveys for giant garter snake conducted 24 hours before commencement of construction activities or potential activity would provide the information necessary to adequately mitigate for potential impacts to this species regardless of past surveys. Also, avoidance of any occupied area during construction and restoration of any impact to upland or marsh habitat after completion of impacts would preclude a "substantial adverse effect, either directly or through habitat modifications" on the giant garter snake (quoted significance criteria is from Appendix G of the CEQA Guidelines). Therefore, Mitigation Measure B-1c provides sufficient mitigation for this species.
- **B5-444** Restoration of any impact to upland or marsh habitat after completion of impacts is only one part of the mitigation measure designed to protect this species. For example, avoidance of any occupied areas during construction would also be implemented. Therefore, taken as a whole, Mitigation Measure B-1c would provide complete, adequate, and sufficient mitigation for any potential impacts to this species. Although Mitigation Measure B-1c does not directly state who would conduct, certify, and determine the timing of restoration activities, the EIR does state that consultation shall be conducted with the USFWS to obtain the necessary permits and approvals. Therefore, the USFWS would be the responsible agency involved in the mitigation of potential impacts to giant garter snake.
- **B5-445** Preconstruction surveys conducted by a qualified biologist within 30 days prior to initiation of construction would provide the information necessary to adequately mitigate for potential impacts to this species regardless of past surveys. Surveys would be conducted by a biologist able to identify burrowing owls and their burrows. Timing of surveys in relation to the initiation of construction would be coordinated with the construction manager. Potential habitat for this species is defined in Section D.3.1.5 of the EIR: "It occurs on grasslands and pastures in the general area and was observed on the project site near Morrison Creek during biological surveys (SNGS, LLC 2007a). There is a potential that this species

occurs throughout the project area and would utilize ground squirrel burrows for nesting and cover."

- **B5-446** The introduction to Section D.3, Biological Resources, of the EIR lists the biological surveys conducted on site. Namely, reconnaissance-level special-status species surveys were conducted in November 2006, reconnaissance-level field surveys were conducted in April 2007. In addition, a Preliminary Jurisdictional Delineation Report prepared for the City of Sacramento by Sycamore Environmental Consultants in March 2008 and the 2007 SNGS, LLC's Proponent's Environmental Assessment (PEA) and Addendum supply information with respect to prior biological surveys conducted on site. Furthermore, the EIR states that this information has been peer reviewed and revised where necessary and provides references to the reports related to these surveys.
- **B5-447** Although the location of nesting areas of burrowing owls has not been identified, the measure provides sufficient detail, such as buffer extent and timing of measure implementation, to completely, adequately, and sufficiently mitigate any potential impacts to this species based on the results of preconstruction surveys. When the young have fledged they will no longer occupy the nest; therefore, occupancy is used as a period limit on construction activities. Burrow occupancy would be determined by a qualified biologist during preconstruction surveys. Table D.3-4 in the EIR states that SNGS, LLC would identify work areas and would ensure that areas supporting sensitive resources (e.g., nearby seasonal wetlands and special-status species' habitat) are avoided. Therefore, SNGS, LCC would establish the 250-foot buffer if necessary. As stated in Mitigation Measure B-1d, commencement of construction in the buffer zone would be determined by when the young have fledged, which would be determined by a qualified biologist able to determine the breeding status of this species.
- **B5-448** Unoccupied nests with only a potential to support burrowing owls are not protected by the CDFG.
- **B5-449** The non-breeding season is between August 16 and January 31, the converse of the breeding season given in Mitigation Measure B-1d (February 1 to August 15). The term "passive relocations" implies that any burrowing owl individuals will be relocated to safety prior to any construction-related activity that would potentially impact those individuals. Although the EIR does not state who would physically conduct passive relocations, it does stipulate that relocations be done under the supervision of the CDFG.

- **B5-450** Permanent impacts, as opposed to temporary impacts in which habitat would be recovered or restored, are described in Section D.3.3.3 as "the loss of or substantial disturbance to" foraging habitat. This section states that implementation of the Proposed Project would result in the loss of or substantial disturbance to approximately 9 acres of grassland habitat. In addition, Mitigation Measure B-1e states that mitigation would be for the permanent loss of habitat at the proposed compressor station site and proposed wellhead site. Therefore, impacts to foraging habitat for Swainson's hawk and other raptors has been defined and delineated. Impact B-4 in Section D.3.3.3 of the EIR describes impacts to wildlife movement corridors.
- **B5-451** Project alternatives are described in Section D.3.4 of the EIR. Section D.3.3.3 states that implementation of the Proposed Project would result in the loss of or substantial disturbance to approximately 9 acres of grassland habitat. In addition, Mitigation Measure B-1e states that mitigation would be for the permanent loss of habitat at the proposed compressor station site and proposed wellhead site. Therefore, impacts to foraging habitat for Swainson's hawk and other raptors has been defined, quantified, and delineated.
- **B5-452** Cumulative impacts to biological resources are discussed in Section F.4.2
- **B5-453** As stated in Impact B-4 of Section D.3.3.3, no impacts to fish habitat are expected with implementation of the Proposed Project.
- **B5-454** Impacts to foraging habitat for Swainson's hawk and other raptors will be fully mitigated using a .75:1 ratio. Purchase of mitigation bank credits in a CDFG mitigation bank or payment of a mitigation fee to an approved habitat mitigation bank will ensure that the value of foraging habitat maintained will be of sufficient value to compensate for the loss of habitat imposed by the Proposed Project.
- **B5-455** Please refer to response B5-451.
- **B5-456** Preconstruction surveys conducted during the breeding season within one-half mile of all construction activities would provide the information necessary to adequately mitigate for potential impacts to active nests of raptors or other migratory birds regardless of past surveys. Mitigation Measure B-1f states that a qualified biologist will conduct the survey, who would then be the one to determine "nests." In addition, timing of surveys would be timed to ensure that they are conducted "prior to construction."

- **B5-457** As stated in Table G-1 of the EIR, surveys will be conducted prior to construction during the breeding season (February 1 through August 30) within one-half mile of all construction activities. Also, monitoring shall occur during construction if necessary.
- **B5-458** The EIR describes the Migratory Bird Treaty Act in Section D.3.2.1 where it references a list of migratory birds used to define "migratory" birds. This section also states that occupied nests and eggs of these birds are protected by federal and state laws; therefore, "nesting" birds would be those with occupied nests and/or eggs. The qualified biologist referenced in Mitigation Measure B-1f would make this determination. Table D.3-4 states that SNGS, LLC would identify work areas and would ensure that areas supporting sensitive resources (e.g., nearby seasonal wetlands and special-status species' habitat) are avoided. Therefore, SNGS, LLC would be responsible for selecting, compensating, and overseeing the qualified biologist. As stated in Mitigation Measure B-1f, if construction delays are not possible, the CDFG will be consulted to create a minimum 250-foot buffer zone and the nests shall be monitored during construction. Therefore, the CDFG would be involved in the implementation of mitigation for potential impacts to active nests of raptors or other migratory birds.
- **B5-459** The EIR states that a minimum 250-foot buffer zone around active nests would be established. The results of preconstruction surveys would determine the actual location of this buffer if nests are found. The measure provides the period of time that no work would occur by stating that construction shall be delayed until the birds have fledged. When the birds have fledged, they would no longer occupy the nest; therefore, occupy is used to determine the period limits.
- **B5-460** See responses to comments above.
- **B5-461** Only a small portion of the site north of Kwajalien Street is considered riparian habitat based on the vegetation map (refer to Figure D.3-2). None of the wetlands mapped on site (refer to Figure D.3-3c) overlap this area. Therefore, the wetlands mapped on site do not constitute riparian habitat. Vegetation mapping was prepared by Dudek in 2008 based on field reconnaissance described in the EIR and aerial photographs.
- **B5-462** As delineated on Figures D.3-2 and D.3-3c, there is no overlap between areas mapped as riparian habitat and wetlands on site. In Section D.3.1.3, the EIR states that Morrison Creek, Old Morrison Creek, and several swales have been heavily disturbed and contain no developed riparian vegetation in the vicinity of the Proposed Project but do contain some hydrophytic vegetation. Therefore, the

hydrophytic vegetation that comprise a wetland do not necessarily constitute riparian habitat. For purposes of the EIR, the riparian vegetation contained trees or shrubs with both an upperstory and understory. Although not delineated, the EIR states that 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 and lists several measures to be implemented during horizontal boring (jack and bore) operations (refer to Mitigation Measure B-3b).

B5-463 Mitigation Measure B-3b states:

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.

Therefore, the potential impact would be mitigated through the acquisition of the appropriate permits that include methods to avoid or properly remediate the potential impacts created by frac-outs based on the extent of damage caused by the frac-out.

- **B5-464** The EIR describes the delineation of portions of the pipeline within the national resource protection area: "a portion of pipeline segment one and most of pipeline segment two are contained within the natural resource protection area set aside in The Sacramento Army Depot Reuse Plan (Sacramento, City of 1994)." Mitigation Measure B-6 describes the special measures related to this area, including the coordination for the use of this area, "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." In addition, the city has agreed to establish and implement a mitigation monitoring plan to ensure all mitigation measures set forth in the Sacramento Army Depot EIR, Sacramento Army Depot Disposal and Reuse Plan, and the Biological Assessment for the Vernal Pool Fairy Shrimp are observed.
- **B5-465** Mitigation Measure B-6 provides the requirements for the use of the national resource protection area (refer to response B5-464). Figure D.3-2 of the EIR shows the current vegetation on site. Table D.3-4 describes the revegetation of

impacted areas. Specifically, following installation of the pipeline, the right-ofway would be graded to pre-construction grades and contours and would be seeded with an appropriate seed mix. The seed mix would be composed of the appropriate mix of species and be acceptable to the landowner.

B5-466 It is estimated that 0.50 to 0.75 acre of wetlands would be disturbed. Impacts are quantified as a range in the EIR to allow for unforeseen construction circumstances while accurately presenting an estimate of potential impacts to wetlands on site.

As stated in Impact B-3, impacts to wetlands will require certification from the RWQCB under Section 401 of the Clean Water Act (CWA). Section D.3.2.1 explains that developments with impact to jurisdictional waters must demonstrate compliance with the goals of the act by developing Stormwater Pollution Prevention Plans (SWPPPs), Standard Urban Storm Water Mitigation Plans, and other measures in order to obtain a CWA Section 401 certification. Therefore, acquisition of a CWA Section 401 certification would address run-off impacts.

Although not delineated, the EIR states that 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 and lists several measures to be implemented during horizontal boring (jack and bore) operations (refer to Mitigation Measure B-3b).

Figures D.3-3a through D.3-3e depict the location of the wetlands and waters of the U.S. within the project area.

Wetland-related species are addressed in Section D.3.1.3 of the EIR. These areas have potential to support aquatic and riparian vegetation, but have been heavily disturbed and contain no developed riparian vegetation in the vicinity of the Proposed Project, although they do contain some hydrophytic vegetation. These areas have limited value to wildlife, but do serve as a water source for the area's wildlife. In addition, since analysis of the vernal pools for fairy shrimp was not conducted, presence is assumed and therefore not delineated.

The EIR states that impacts to wetlands would be considered a significant impact (refer to Impact B-3).

The EIR outlines the relevant agencies that would be involved in determining acceptable mitigation for impacts to wetlands:

This is considered a significant impact and will require permits from the ACOE under Section 404 of the 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.

B5-467 The jurisdictional delineation conducted by CH2M HILL in 2003 was verified in September 2006 (refer to Section D.3.1 of the EIR). 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 as a portion of the permitting process during final design. These areas may still be under the jurisdiction of the CDFG and/or California's RWQCB. Final verification of jurisdictions will be by those agencies.

As stated in Impact B-4 of Section D.3.3.3, no impacts to fish habitat are expected with implementation of the Proposed Project.

- **B5-468** The EIR states that wetlands shall be avoided where feasible, either through rerouting of the pipeline or the use of HDD. Therefore, "feasible" is indirectly defined in terms of the conditions required to avoid impacts to wetlands, namely rerouting or the use of HDD. These methods would not be expected to result in impacts to wetlands. However, Mitigation Measure B-3a also states that where wetlands cannot be avoided, the loss of wetlands shall be compensated for through restoration of the wetlands or through creation of wetlands elsewhere.
- **B5-469** Avoidance of wetlands will be the first priority and these may be accomplished by the use of HDD or rerouting of pipelines. Where these cannot be avoided, they will either be restored or compensated for. The exact wetlands will be determined in consultation with the ACOE, RWQCB, and the USFWS. For purposes of the EIR, it was assumed these wetlands would be lost.
- **B5-470** The EIR describes where impacts to wetlands can be avoided: "Wetlands shall be avoided where feasible either through rerouting of the pipeline or the use of HDD." In addition, impacts to wetlands are quantified in Impact B-3, "It is estimated that 0.50 to 0.75 acre of wetlands would be disturbed."
- **B5-471** Mitigation Measure B-3a refers to measures that would address impacts to wetlands under both federal and state jurisdictions. Section D.3.2.1 states that the

conditions of a Streambed Alteration Agreement and a Clean Water Act Section 404 permit often overlap. Therefore, replacement ratios are likely to be similar for both federal and sate jurisdictions. Mitigation for impacts to wetlands may occur through restoration or creation or acquisition. A range is given for an estimated replacement ratio to account for variation in the method of mitigation utilized and the requirements of various jurisdictions.

- **B5-472** Although frac-outs are a possibility, SNGS, LLC shall implement all pre- and post-construction conditions identified in the permits issued for HDD activities, which will involve methods to avoid or remediate frac-outs. Mitigation Measure B-3b(3) provides mitigation for potential impacts to creeks and drainages related to spills.
- **B5-473** Mitigation Measure B-3b provides specific measures that will be implemented for potential impacts to creeks and drainages related to sediment, runoff, and spills. Table D.3-4 refers to an erosion control and sediment plan in APM 2. In addition, Mitigation Measure B-3b(4) states that temporary sediment barriers will be left in place until restoration is deemed successful. Regardless of the season in which horizontal boring is conducted at creek and drainage crossings, implementation of the measures outlined in Mitigation Measure B-3a will ensure that work in these areas does not result in a sediment-laden discharge or hazardous materials release to the waterbody.
- **B5-474** The EIR states that impacts to wetlands would occur through development of the compressor station, and installation of pipeline segments one and two, which are depicted on Figure D.3-2. Mitigation Measure B-3a states that 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. In addition, CDFG or RWQCB permits shall be obtained by the appropriate agency prior to initiation of construction. Therefore, permits have not yet been acquired, but will be required prior to construction of the Proposed Project.
- **B5-475** Table G-1 provides the effectiveness criteria for this mitigation measure. Specifically, SNGS, LLC must receive approval of the HDD plan by CPUC and CDFG.
- **B5-476** Mitigation Measure B-3 includes methods to be used to avoid or remediate fracouts. For example, 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.

- **B5-477** All wetland permit applications shall adhere to the requirements of the individual permits.
- **B5-478** As stated in Impact B-4 of Section D.3.3.3, no impacts to fish habitat are expected with implementation of the Proposed Project.
- **B5-479** The jurisdictional delineation of Morrison Creek is unrelated to it acting as a potential wildlife corridor.
- **B5-480** Field surveys referenced in the introduction of Section D.3 of the EIR have contributed to the conclusion that Morrison Creek, Old Morrison Creek, and several swales have been heavily disturbed and have limited value to wildlife (refer to Section D.3.1.3 of the EIR). In addition, reconnaissance-level special-status species surveys were conducted during the rainy season in November 2006. Because no impacts to fish habitat are expected based on field investigation and the nature of the work to be conducted in this area, consultation related to impacting riverine fisheries would not be necessary.
- **B5-481** The South Sacramento HCP is a public document that can be found online at http://www.planning.saccounty.net/SSHCP.html. In addition, the EIR provides a reference for the Deport Reuse Plan. The preliminary jurisdictional delineation (wetlands and "water" resources) is depicted in Figures D.3-3a through D.3-3e. The vegetation map is provided in Figure D.3-2. Vegetation communities considered potential habitat for special-status plant and animal species are discussed in Section D.3.1.5. The range of special-status plant and animal species for which additional surveys were recommended overlap the project site.
- **B5-482** No resources of concern occur within the South Sacramento HCP. However, as the EIR states in Impact B-5 only a portion of the Proposed Project within the unincorporated portion of Sacramento County is located within the South Sacramento HCP. Therefore, additional surveys are recommended other areas within the project area that have potential to support special-status species.
- **B5-483** The EIR also states that with implementation of Mitigation Measure B-6, potential impacts of pipeline construction in the natural resource protection area set aside in The Sacramento Army Depot Reuse Plan will be reduced to less than significant (Class II).
- **B5-484** The EIR provides mitigation for project-related impacts to biological resources, including wetlands, and special-status plants and animals, in areas surrounding the urbanized portions of the project area. This demonstrates a regard for the

remaining biological resources in urban environments and provides protection for those resources.

- **B5-485** Although there are trees in the area, implementation of the Proposed Project is not expected to impact any of the trees in the area so there would be no conflict with the City of Sacramento Tree Preservation Ordinance. Because the Proposed Project is not expected to impact any of the trees in the area, the Proposed Project would not conflict with any size requirements and root zone protection requirements that may be in the City of Sacramento Tree Preservation Ordinance.
- **B5-486** As the EIR states, the mitigation implemented to reduce the potential impacts of pipeline construction in the natural resource protection area set aside in The Sacramento Army Depot Reuse Plan between SNGS, LLC and the City of Sacramento and the Department of the Army. Therefore, the final mitigation resulting from coordination with these entities has not yet been decided, but will fully mitigate any potential impacts to a less than significant level by involving the agencies that created the local policy that may be in conflict with the Proposed Project.
- **B5-487** Please refer to the response to comment B5-486. In addition, although the specifics of the final mitigation have yet to be determined, the EIR provides likely measures that would result from coordination between the agencies involved, including increased use of HDD or compensation for any wetland loss on a 2- or 3-to-1 basis. Therefore, sufficient information is provided to evaluate the adequacy of the mitigation measure.
- **B5-488** The introduction to Section G of the EIR describes the relationship between mitigation measures discussed in Sections D and G. Specifically, a mitigation monitoring, compliance, and reporting program (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) and lists each mitigation measure and outlines procedures for successful implementation while Section G provides the recommended framework for effective implementation of the MMCRP and describes the roles of responsible parties in carrying out and enforcing adopted mitigation measures.
- **B5-489** As stated in Section D.4.1.5 of the EIR, on November 30, 2006, a letter was sent to the North Central Information Center (NCIC) requesting the preparation of a records search of the California Historic Resource Information System (CHRIS) for the project area. The records search was completed by the NCIC on

December 6, 2006, and a total of 12 cultural resource sites were identified within a one-quarter-mile search radius of the site. None are within the project area itself.

- **B5-490** Please refer to response A11-13 with regard to availability of applicable studies.
- **B5-491** As stated in Section D.4.3.3 of the EIR, under Impact C-2, 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; therefore, this impact is considered significant. Implementation of Mitigation Measures C-2a and C-2b would reduce this impact to less than significant (Class II). Refer to Section D.1 of the EIR for classification of impact significance.
- **B5-492** As stated in Section D.4.3.3 of the EIR, under Impact C-1, 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. Also refer to response B5-491.

- **B5-493** Please refer to response B5-332 with regard to APMs and response A11-3 regarding mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-494** As stated in response B5-492, the wellhead site was surveyed and no cultural resource sites were identified. Please also refer to responses B5-489 and B5-491.
- **B5-495** Please refer to responses B5-489 through B5-494.
- **B5-496** Please refer to response A11-13 with regard to availability of applicable studies.
- **B5-497** Please refer to response A11-13 with regard to availability of applicable studies.
- **B5-498** Please refer to response A11-13 with regard to availability of applicable studies.
- **B5-499** The section provides an adequate discussion of the topography of the area without a map of a 15-mile radius, especially since the area has relatively level topography.
- **B5-500** The analysis of regional geology is adequate for the analysis of project impacts.

- **B5-501** The description of regional soils and geology is adequate for the analysis of the impacts of the Proposed Project.
- **B5-502** Additional discussion of the geology of the site is found in Section B of the EIR.
- **B5-503** The discussion of the geology was focused on the historic formation of the gas field and the basic structure. Only specific information is extracted from these studies and the studies as such are not incorporated by reference.
- **B5-504** In response to this comment, Section D.5, Geology and Soils, has been modified in the Final EIR. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-505** Information on the geologic structure is based on the best available information from existing sources; historic records; and other information, such as seismic data. The comment seems to demand that additional full geotechnical studies be conducted that are updated. Historic information is adequate to make an impact analysis of the impacts of the Proposed Project.
- **B5-506** The presence of an inactive fault within the Florin Gas Field is one of considerable debate among experts. If a fault is inferred it does not mean that this is a weakness in the area since inactive faults are common in gas and oil fields.
- **B5-507** The presence of an inactive fault within a gas field is not necessarily an area of weakness. Gas pressures may actually seal the fault further.
- **B5-508** Please refer to response B5-332 regarding APMs and response A11-3 regarding mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-509** The analysis that the commenter refers to is related to the presence of Alquist-Priolo Fault Zones and the impact associated with fault rupture during a seismic event. The project area is not within an Alquist-Priolo Zone.
- **B5-510** It is the opinion of most experts, including DOGGR staff, that the gas has been contained for millions of years. There are no calculations that would be available.
- **B5-511** The commenter is correct that the Ryder Scott analysis and other studies are based on limited data. That is why the potential for gas seepage cannot be discounted.

B5-116

- **B5-512** Impacts to paleontological resources were considered significant. Mitigation measures, in terms of monitoring, were identified to reduce this impact to less than significant. Paleontological resources will either be avoided or salvaged through identification of resources during construction.
- **B5-513** Please refer to response A11-13 with regard to availability of applicable studies.
- **B5-514** Section D.6.1 of the EIR, Environmental Setting for the Proposed Project, identifies known hazardous waste contamination sites in the study area for the Proposed Project. Information on known hazardous material sites was collected from the review of several documents, including the Proponent's Environmental Assessment (PEA) (SNGS, LLC 2007a), the addendum to the PEA (2007b), the environmental site assessment prepared for the project (Kleinfelder 2007), and the study conducted for the closure and reuse of the former Sacramento Army Depot (Ebasco Environmental 1992). This section of the EIR also discusses the past uses of the project area for gas extraction and the history of the Florin Gas Field. Please also refer to response B5-91.
- **B5-515** Section D.11 of the EIR, Public Services and Utilities, identifies local fire, police, and hospital serves in the project area.
- **B5-516** Use of flame ionization is a standard method of detecting gas at lower concentrations, and since it is contained, does not set off fires or explosions.
- **B5-517** Please refer to response B5-514.
- **B5-518** Please refer to response B5-514. Sites are based on known information and it was not possible to enter these sites to assess quantities.
- **B5-519** The pipeline risk assessment addressed the impacts and mitigation associated with the potential release of gas. Mitigation measures were also identified for use and transport of hazardous materials during construction.
- **B5-520** Please refer to response B5-514.
- **B5-521** Please refer to Section D.8 of the EIR, which provides additional information on contamination at the former Army Depot.
- **B5-522** In response to this comment, additional discussion has been added to Section D.6.1.1 of the Final EIR and "economic feasibility" has been removed. These changes and additions to the EIR do not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful

review, or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-523** In response to this comment, additional discussion has been added to Section D.6.1.1 of the Final EIR. These additions to the EIR do not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-524** Any future releases from existing sources, including the railroad and other pipelines, is not an impact of the project and is highly speculative as to its occurrence.
- **B5-525** Figure B-2 of the Final EIR has been modified to show the location of the plugged and abandoned wells. This change to the EIR does not constitute significant new information and does not change the EIR in such a way as to deprive the public of meaningful review, or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-526** No pipelines were used in the past for transportation of gas from the Florin Gas Field. Gas was either used directly at the industries that constructed the wells or was compressed and transported out of the area via truck. That is why there was no discussion of pipelines.
- **B5-527** Contact with DOGGR personnel has indicated that the wells have been abandoned using recent DOGGR standards. As part of the DOGGR permitting process, they will require a conditions report to determine the current condition of well plugging. They would require any additional remediation of the wells to ensure that leakage would not occur.
- **B5-528** No active wells are present in the reservoir, exact pressures of the field are not known. Since the field has been depleted, the pressures described in the EIR are generally accurate.
- **B5-529** The information on the 20 sites is listed in the Kleinfelder 2007 report. Please refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process and the availability of reports.

- **B5-530** Pleaser refer to Section D.7 of the EIR for additional description of the groundwater at the former Army Depot.
- **B5-531** Please refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process and the availability of reports.
- **B5-532** No specific location of the Purity Oil Sales Site is available.
- **B5-533** Additional information about the sites is provided in Section D.7 of the EIR. The remediation at Depot Park is ongoing. This is the responsibility of the Army to complete remediation and has been considered in the assessment of the impacts of the project.
- **B5-534** Please refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process.
- **B5-535** Additional information has been provided on the remediation of the compressor site.
- **B5-536** Groundwater investigations for the Army Depot have considered impacts on the rail sidings since they were part of the Army Depot. Other than HDD under the railroad track, the pipelines will not enter the railroad ROW.
- **B5-537** The sidings and other features were evaluated as a part of the Army Depot studies and are part of the remediation effort.
- **B5-538** Please refer to Sections D.5 and D.6 of the EIR regarding the newly expanded role of DOGGR.
- **B5-539** DOGGR has primary responsibility for field safety. Please refer to responses A7-1 and A7-2.
- **B5-540** The City of Sacramento will be responsible for a portion of enforcement of regulations.
- **B5-541** It is anticipated that the County will be a cooperating agency for implementation of the Proposed Project.
- **B5-542** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.

B5-119
- **B5-543** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-544** Please refer to response B5-115 regarding compliance with NESHAP. As described in the EIR, the odor analysis is based on the results of the health risk assessment of the glycol dehydration system. The risk assessment used a screening level model, SCREEN3, to estimate the ambient concentrations of toxic air contaminants at sensitive receptors. SCREEN3 uses an array of standard meteorological conditions. While these conditions may not be representative of the actual condition in the vicinity of the project site, they generally result in a worst-case estimation of the ambient concentrations. Exposure to workers at the proposed facility is governed by Cal-OSHA and is not considered an impact on the "environment" in the context of CEQA. Inventories of process vents, etc. will not be available until final design.
- **B5-545** Please refer to response B5-126 regarding Rule 561. The second part of the comment restates comment B5-544. Please refer to response B5-544.
- **B5-546** Please refer to response B5-116. As stated in Section D.2 of the EIR, the SMAQMD does not require permits for devices associated with storage and transmission of natural gas, such as wellhead operations and gas piping within the compressor station. There are no source-specific rules that would apply to such devices. Specifications for the listed equipment will not be available until final design of the facility.
- **B5-547** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-548** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-549** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-550** Please refer to response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.

- **B5-551** Methyl mercaptan will be injected into the pipeline in a closed system and would not be considered fugitive emissions under Rule 481.
- **B5-552** The pipeline risk assessment looks at the pipeline and other facilities in total. It is not realistic to identify vulnerable areas for failure in such a system in that there could be failure in any location from a number of causes.
- **B5-553** Contact with DOGGR has indicated that the wells were plugged properly according to DOGGR standards. As a portion of the well permitting process, DOGGR will require an examination of each plugged well and will require remediation of any issues prior to storage of gas.
- **B5-554** See response B5-553.
- **B5-555** See response B5-553.
- **B5-556** Well depth grouting and other aspects of well drilling will be determined in final design and in the well drilling plan, which will be reviewed and approved by DOGGR.
- **B5-557** See responses B5-553 and B5-556.
- **B5-558** See responses B5-553 and B5-556.
- **B5-559** This statement is about the Florin Gas Field not Playa Del Rey. The type of field and structure of that field is substantially different from the Florin Gas Field.
- **B5-560** There has been no documentation of gas leakage from the Florin Gas Field. This does not mean that it has not occurred, but there are no records of its occurrence.
- **B5-561** The discussion is accurate in the EIR since it accurately discusses the conclusions of the Ryder Scott report.
- **B5-562** Standards of the industry is an acceptable method of analysis, especially when little information is known about the reservoir.
- **B5-563** Comment noted; however, it is unclear what the commenter is referring to and no further response can be provided or is required.
- **B5-564** It is not possible to provide a quantitative analysis of risk. That is why the impact is considered significant and unavoidable. The cap rock from the previous cores are not available for testing and it is not practical at this stage of development to construct wells to sample the cap rock.

- **B5-565** This information is based on the best available information and we agree there is some uncertainty in the cap rock integrity.
- **B5-566** See responses B5-564 and B5-565.
- **B5-567** See responses B5-564 and B5-565.
- **B5-568** See responses B5-564 and B5-565.
- **B5-569** See responses B5-564 and B5-565.
- **B5-570** See responses B5-564 and B5-565.
- **B5-571** See responses B5-564 and B5-565.
- **B5-572** See responses B5-564 and B5-565.
- **B5-573** See responses B5-564 and B5-565.
- **B5-574** See responses B5-564 and B5-565.
- **B5-575** See responses B5-564 and B5-565.
- **B5-576** See responses B5-564 and B5-565.
- **B5-577** See responses B5-564 and B5-565.
- **B5-578** See responses B5-564 and B5-565.
- **B5-579** See responses B5-564 and B5-565.
- **B5-580** The effectiveness of reducing the pressure in the reservoir to curtail gas migration is not known. That is why the impact was considered significant and unavoidable.
- **B5-581** A detailed pipeline safety analysis was conducted for the EIR including quantitative analysis of the impacts.
- **B5-582** The EIR provides sufficient information regarding the compressor station to adequately address the impact of the Proposed Project.
- **B5-583** Please refer to response 581.
- **B5-584** In response to this comment, Mitigation Measure HAZ-2a*i* has been edited in the Final EIR to delete the conditional phrase, "if recommended by industry experts."

This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-585** Please refer to response B5-584. In response to this comment, conditional language has been edited in Mitigation Measure HAZ-2a*i* in the Final EIR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-586** DOGGR is the agency that has the responsibility to regulate such operations, including wells, reservoirs, and pipelines, and has the technical expertise to ensure that mitigation is enforced.
- **B5-587** The gas detection plan will be developed in consultation with several agencies, including DOGGR, the CPUC, and local agencies. This cannot be developed until the drilling program and other project elements have been developed as part of the final design.
- **B5-588** Please refer to response 587.
- **B5-589** Reviewing authorities have full power to not approve any portion or all of the project.
- **B5-590** We agree with the commenter that it will be difficult to respond to leakage of gas to mitigate leakage. That is why the impact is considered an unavoidable significant impact.
- **B5-591** The implementation of the Proposed Project would also involve monitoring that would provide earlier detection of gas migration. This would include measurement of pressure in the aquifer as well as measurement of temperatures within the zone of injection.
- **B5-592** Please refer to response B5-591.
- **B5-593** The 5-year period for monitoring described in Mitigation Measure Haz-2a*ii* has been eliminated, monitoring will occur during the life of the project. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

B5-594	This is a mitigation measure, not an APM since it was not proposed by the applicant. Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
B5-595	The monitoring plan will consider the type and location of instrumentation.
B5-596	Please refer to response 595.
B5-597	It is assumed that the applicant will fund the costs for the program that will be administered by the fire department.
B5-598	Please see response 594.
B5-599	The operation manual will be prepared during the project permitting process. There is adequate information in the EIR to determine project impacts.
B5-600	The mitigation monitoring plan will outline the timing of mitigations. This will not occur until initial decisions for the project are made.
B5-601	See response B5-600.
B5-602	The pipeline safety analysis provides a detailed analysis of the risk associated with the operation of the pipelines.
B5-603	As shown in the mitigation monitoring plan, a wide variety of agencies are responsible for implementation.
B5-604	See response B5-600.
B5-605	See response B5-600.
B5-606	See response B5-600.
B5-607	See response B5-600.
B5-608	This information will not be available until completion of final design.
B5-609	See response B5-600.
B5-610	Please refer to response A11-13 with regard to availability of applicable studies.
B5-611	The analysis within the EIR, Section D.7, Hydrology and Water Quality, is of sufficient detail to determine the impacts of the Proposed Project.

- **B5-612** The EIR does recognize that the Proposed Project must comply with federal, state, and local regulations. It is not adequate to say they will comply, but specific mitigation measures are required.
- **B5-613** See response B5-611.
- **B5-614** See response B5-611.
- **B5-615** See response B5-611.
- **B5-616** The EIR provides sufficient information upon which to base the impacts of the Proposed Project.
- **B5-617** See response B5-616.
- **B5-618** The Proposed Project will involve only a small amount of surface area and it will not contribute substantially to storm runoff in relation to water volume and quality.
- **B5-619** Please see response B5-616.
- **B5-620** Please see response B5-616.
- **B5-621** See response B5-616.
- **B5-622** The groundwater levels in the project area are based on recorded information in the project area. The geotechnical studies did not specifically look for the depth to groundwater. HDD would be constructed under Morrison Creek and it is assumed that the groundwater would be much shallower in that region.
- **B5-623** Pleases see response B5-616. The migration of gas into specific aquifers is highly speculative and additional surveys would not change this speculation.
- **B5-624** Please see response B5-616.
- **B5-625** See response B5-611.
- **B5-626** Please see response B5-616.
- **B5-627** This comment relates to the PEA and not the EIR
- **B5-628** See response B5-627.
- **B5-629** The information in the EIR is adequate in describing this well.

- **B5-630** This comment refers to the PEA and not the EIR.
- **B5-631** See response B5-611.
- **B5-632** The EIR is correct in its description. The saline water below the cap rock is what drives the water drive for the gas field.
- **B5-633** See response B5-616.
- **B5-634** See response B5-616.
- **B5-635** The Mehrten layer at 1,400 feet is saline and is not used for potable use at this time.
- **B5-636** Section D.7.1.3 of the Final EIR has been modified to include additional information about the aquifers. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-637** Section D.5, Geology and Soils, adequately describes the geologic conditions in the project area, therefore EIR revision is not necessary.
- **B5-638** Refer to Section D.7, Hydrology and Water Quality of the EIR, which describes the Army remediation program.
- **B5-639** Remediation of the groundwater at the former Army Depot is the responsibility of the Army. This activity is ongoing and is reducing the levels of previous contamination. Please see the modifications in Section D.7 of the Final EIR addressing the remediation activities. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-640** Refer to response B5-639.
- **B5-641** Refer to response B5-639.
- **B5-642** See response B5-618. The EIR provides sufficient information upon which to base impacts.
- **B5-643** Refer to response B5-639.

- **B5-644** The sidings associated with the former Army Depot were part of the Army's remediation effort. Contamination along the main line railroad track is unknown and could not be studied since no permission was given to work on the UPRR ROW.
- **B5-645** The section on HDD has been modified to discuss encountering of contaminated water. This water would either be treated or disposed of at an approved facility. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-646** Please refer to Section D.7, Hydrology and Water Quality, of the EIR, which provides information on the water quality of the Morrison Creek watershed.
- **B5-647** The EIR provides adequate information upon which to base the impact analysis. This additional information request will not change the impact discussion.
- **B5-648** The EIR provides accurate information on the current flood plane in the area and does not need to discuss historical flooding.
- **B5-649** This information is based on the location of the pipeline relative to known flood plains.
- **B5-650** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-651** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-652** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-653** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-654** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.

- **B5-655** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-656** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-657** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-658** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-659** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-660** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-661** Wetland delineations are discussed in Section D.3.1.4 of the EIR.
- **B5-662** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-663** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-664** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-665** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.

- **B5-666** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-667** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-668** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-669** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-670** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-671** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-672** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-673** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-674** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-675** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.

- **B5-676** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-677** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-678** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-679** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-680** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-681** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-682** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-683** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-684** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-685** Please see response B5-332 regarding the approval process for the additional compliance studies. This is a normal process during the permitting process.
- **B5-686** Impacts are based on the information for the project and adequately addresses the hydrologic impacts.

- **B5-687** The information provided in the EIR is sufficient to adequately base the hydrologic and water quality impacts.
- **B5-688** See response B5-687.
- **B5-689** See response B5-687.
- **B5-690** Use of gravel, as described in the EIR, will create a pervious surface. Compaction or use of membranes is not proposed.
- **B5-691** See response B5-618.
- **B5-692** The EIR discussion simply discusses that some off-site flow from off site may enter the site. It is not a formal detention basin and does not function in that capacity. The site is not within a 100-year flood zone and is not expected to become flooded.
- **B5-693** The presence of the wall will not substantially alter drainage patterns and will also be fit with the appropriate drains.
- **B5-694** Completion of a drainage study that will be approved by the City of Sacramento is a standard mitigation measure. Please also see response B5-618.
- **B5-695** This statement is not correct, even with construction activities, the surfaces will remain pervious.
- **B5-696** See response B5-687.
- **B5-697** The drainage plans will be developed to reduce runoff to the extent feasible.
- **B5-698** Contrary to the commenter's statement, once constructed, the pipeline ROW will not appreciably increase impervious surfaces from present conditions.
- **B5-699** The construction of pipelines during dry season is not a mitigation measure, but rather a portion of the project description.
- **B5-700** See response B5-698.
- **B5-701** The information provided within the EIR is sufficient to determine project impacts. See response B5-698.

B5-131

- **B5-702** It is expected that only a small amount of excess material will be generated and that it can be used in the construction areas without substantially raising elevations or changing contours.
- **B5-703** See response B5-698.
- **B5-704** The EIR provides adequate information for determination of impacts. The mitigation measures involving the drainage plan and other safeguards are adequate to reduce impacts to below significant levels.
- **B5-705** Please refer to response B5-704.
- **B5-706** Please refer to response B5-704. The plans must be approved prior to construction.
- **B5-707** The SPCC and HMC plans have specific requirements for compliance and will adequately mitigate impacts to less-than-significant levels. These studies are part of the permitting process and the public would have access to the compliance reports for mitigation measures.
- **B5-708** Please refer to response B5-707.
- **B5-709** Please refer to response B5-707.
- **B5-710** Please refer to response B5-707.
- **B5-711** Please refer to response B5-707.
- **B5-712** The commenter's speculation that groundwater levels are artificially depressed and will increase after remediation has no basis in fact.
- **B5-713** The applicant needs to comply with the regulations of the RWQCB as well as the building permit requirements of the City of Sacramento.
- **B5-714** The commenter's assertion that groundwater infiltration will be reduced by the Proposed Project to an extent that the remediation at the former Army Depot will be impacted is highly speculative and without any basis in fact.
- **B5-715** Mitigation measures have been properly identified and will be monitored through the mitigation monitoring and reporting plan.
- **B5-716** Only non-toxic drilling mud will be used.

- **B5-717** The geotechnical report is correct. Since HDD will be conducted across Morrison Creek, it is possible that groundwater will be encountered and does not indicate that the general groundwater levels will quickly rise.
- **B5-718** Please refer to response B5-717.
- **B5-719** No significant impacts will be associated with the pipeline construction in regards to hydrology. With the exception of the creek crossing, the segment one pipeline will not be within the 100-year floodplain. This area will be constructed using HDD and will not create a significant impact.
- **B5-720** Please refer to response B5-719.
- **B5-721** Please refer to response B5-719.
- **B5-722** The statement is consistent with the description since a portion of pipeline segment one would be in the 100-year floodplain.
- **B5-723** Please refer to response B5-722.
- **B5-724** Pipelines are routinely constructed within floodplains. The pipelines will be buried at least 6 feet deep, which will prevent any damage from scour.
- **B5-725** Design drawings for pipelines are not provided until the final design phase of the project.
- **B5-726** Please refer to response B5-722.
- **B5-727** Please refer to response B5-722.
- **B5-728** The detailed operation plan will be prepared at final design. No third compressor is proposed and the injection pressure will not be increased.
- **B5-729** Because the structures of the reservoir are not well known and cannot be feasibly determined in detail at this time, the impact is considered significant and unavoidable.
- **B5-730** See response B5-739.
- **B5-731** Please refer to response B5-707.
- **B5-732** Please refer to response B5-707.

- **B5-733** Please refer to response B5-707.
- **B5-734** Please refer to response B5-707.
- **B5-735** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-736** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR.
- **B5-737a** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-737b** Section D.11.3.3 of the EIR, Public Services and Utilities Impact Analysis, states that 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. This section of the EIR addresses possible disruptions to existing utilities as a result of the Proposed Project components and is organized by location.
- **B5-738** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required. Please refer to Response B5-935.
- **B5-739** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-740** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-741** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-742** In Section D.7 of the EIR, Hydrology and Water Quality, addresses impacts associated with storm water and existing drainage.

- **B5-743** Please refer to response B5-742.
- **B5-744** The EIR acknowledges that the project is located within SMUD's service area as illustrated in Figure C-1 of the EIR. In response to this comment, the Final EIR has been revised to provide further clarification regarding utility and service providers in Section D.11. This change to the EIR does not change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-745** Please refer to response B5-744.
- **B5-746** A leak at the wellhead facility would have a potential for creation of a short-term torch fire, which could damage the electrical line and other facilities in the area. The effect of such an incident would be localized and would not increase the overall mortality impacts addressed in the pipeline risk assessment.
- **B5-747** As stated in Section D.11.3.3 of the EIR, the Sacramento Fire Department (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 SFD in terms of inspection of facilities during construction and operation.
- **B5-748** Please refer to response A11-3 with regard to mitigation measures and the Mitigation Monitoring and Reporting Plan presented in the EIR. Please refer to responses B5-527 through B5-544 with regard to risks associated with fires and explosions.
- **B5-749** Please refer to responses A11-20, B5-29, and B5-36.
- **B5-750** In response to this comment, the Final EIR has been revised to correct the number of alternatives considered in the screening process in Section E from 17 to 18. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

Please refer to responses A11-20, B5-29, and B5-36. Alternative wellhead sites would not substantially reduce the risk associated with the Proposed Project. An alternative site for the proposed wellhead may increase the impacts since it would be likely that more than one well site would be necessary to fully utilize the reservoir site cumulatively increasing the safety impacts. Additionally, the

alternatives would likely lengthen the pipeline length increasing the probability of a pipeline failure.

- **B5-751** Please refer to responses A11-20, B5-29, and B5-36. Both alternatives would result in significant impacts associated with pipeline rupture. Although the alternative would be slightly less impacting, it would still have significant and unavoidable impacts.
- **B5-752** Please refer to responses B5-72 and B5-321 regarding the No Project Alternative and the Environmentally Superior Alternative. CEQA requires that the EIR consider the No Project Alternative in the analysis even though by definition it does not meet project objectives. The No Project Alternative was considered the environmentally superior alternative since it would result in no impacts associated with the Proposed Project. The Snodgrass field was considered environmentally preferable since it had fewer impacts than the Proposed Project. Moving the wellhead site and pipelines would still result in substantially the same significant and unavoidable impacts as the Proposed Project and would not be environmentally superior.

It is noted that the commenter states that modifications to the Proposed Project (i.e., moving the wellhead site closer to the compressor station and alternative alignments to connecting pipelines) would greatly reduce impacts and would, therefore, be the environmentally superior alternative.

- **B5-753** Please refer to responses A11-20, B5-29 and B5-36. Also see Responses B5-751 and 752. It is likely that more than one wellhead site would be required if the original well sites were used. These sites would not be environmentally preferable.
- **B5-754** As stated in Section A.2.2 of the EIR, Statement of Objectives, the objectives of the Proposed Project are primarily to 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, and to 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.

The analysis conducted in the EIR assumes that there would not be any substantial changes to the operation and maintenance of SMUD's electrical generating power plants or other natural gas users as a result of the project. Any such changes are highly speculative and not reasonably foreseeable. The CPUC acknowledges that should the project result in substantial changes to the operation and maintenance of SMUD's facilities or other natural gas users that could result in environmental effects, subsequent environmental documentation and review may be required.

Please refer to response B5-356 regarding growth related to additional natural gas storage.

- **B5-755** Please refer to response B5-754.
- **B5-756** Please refer to response B5-754.
- **B5-757** Please refer to response B5-754.
- **B5-758** Please refer to response B5-754.
- **B5-759** The projects in the cumulative scenario include a range of project types from residential to commercial developments, industrial warehouse projects, and infrastructure projects. Proposed and pending projects that would be within the Proposed Project area are presented. The list of projects provided in Table F-1 of the EIR includes projects for which applications have been submitted as well as projects that may foreseeably have impacts that would cumulate with those of the Proposed Project and are included in general plans or other planning documents. Information provided in Table F-1 was gathered from an Internet search of local planning agencies, personal communication with planning staff of the City of Sacramento (Hockman, pers. comm. 2008), County of Sacramento (Alexandrou, pers. comm. 2008), Sacramento Housing and Redevelopment Agency, review of general and community plans of the affected jurisdictions, and habitat conservation plans. Please refer to response B5-282.
- **B5-760** The cumulative impact analysis provided in Section F.4 of the EIR presents the analysis of the potential for the Proposed Project to create cumulatively considerable effects when the impacts of projects listed in Table F-1 of the EIR are considered together with the impacts of the Proposed Project. Mitigation measures identified are those that would reduce the Proposed Project's cumulative impacts. The EIR includes a reasoned analysis of all cumulative environmental impacts that may be anticipated as part of the cumulative analysis and focuses on potential cumulative impacts where the Proposed Project may contribute an incremental effect that may be considered significant. The EIR takes a conservative approach to potential cumulative impacts and does not rely on other

project's potential impacts, beyond part of the overall discussion, in order to determine whether or not the Proposed Project's impacts will be cumulatively considerable or not.

- **B5-761** Please refer to response B5-754 with regard to growth related to additional natural gas storage and response B5-759 with regard to the baseline and the projects list used in the cumulative impact analysis.
- **B5-762** Please refer to response B5-760.
- **B5-763** Please refer to response B5-761.
- **B5-764** As stated in response B5-754, the project is not anticipated to support increased future natural gas stogie projects in the cumulative impact study area and, therefore, associated cumulative impacts to geology and soils are not anticipated.
- **B5-765** Please refer to response B5-760.
- **B5-766** Please refer to response B5-754 with regard to growth related to additional natural gas storage and response B5-759 with regard to the baseline and the projects list used in the cumulative impact analysis.
- **B5-767** As stated in response B5-754, the project is not anticipated to support increased future natural gas storage projects and industrial development in the cumulative impact study area; therefore, associated cumulative impacts to public health and safety are not anticipated.
- **B5-768** Please refer to response B5-760.
- **B5-769** Please refer to response B5-754 with regard to growth related to additional natural gas storage and response B5-759 with regard to the baseline and the projects list used in the cumulative impact analysis.
- **B5-770** As stated in response 754, the project is not anticipated to support increased future natural gas storage projects and industrial development in the cumulative impact study area; therefore, associated cumulative impacts to public health and safety are not anticipated.
- **B5-771** Please refer to response B5-770.
- **B5-772** Please refer to response B5-760.

- **B5-773** Strategic locations will be developed by the agencies involved and will include any potential area of gas leakage and sensitive locations.
- **B5-774** Determination of baseline conditions will be developed in the same monitoring plan and reviewed and approved by the various agencies. This will be implemented prior to injection of any gas.
- **B5-775** The EIR includes a mitigation monitoring, compliance, and reporting program (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 of the EIR) and 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.
- **B5-776** This is not a confused statement. The characteristics of pipeline gas may change over the years and it will be important to determine the characteristics of the gas relative to any other gas sources.
- **B5-777** See response B5-776.
- **B5-778** See response B5-776.
- **B5-779** The plan will be in place prior to injection of any gas.
- **B5-780** See response B5-776.
- **B5-781** Certified gas testers are for mines and tunnels. The certifications are not relevant to this type of monitoring.
- **B5-782** The gas monitoring program will be developed and implemented prior to injection of gas.
- **B5-783** The four sites identified are not the only sites. Additional monitoring sites will be placed at additional locations in the project area.

B5-139

- **B5-784** See response B5-783.
- **B5-785** Please see response B5-781.
- **B5-786** See response B5-781.

- **B5-787** The testing program will be implemented prior to injection of gas.
- **B5-788** The plan will undergo full review and probably several rounds of review by the reviewing agencies.
- **B5-789** Releases from the compressor station, sectionalizing vales, control equipment, pig launchers, etc. are included in the results presented in the EIR. As noted in the first full paragraph of Section 5.1 of Appendix B, System Safety and Risk of Upset, of the EIR, "these data also include anticipated releases from the meter and compressor stations and other appurtenances, which are also under USDOT jurisdiction and are subject to the pipeline incident reporting requirements. As a result, releases from these facilities have been included in the previously presented baseline data."

For example, of the 761 reportable incidents related to natural gas transmission pipelines occurring between January 2002 through December 2007:

- 586 incidents (77%) were from the pipeline itself
- 59 incidents (7.8%) were from other components (e.g., riser, wellhead meters, relief valves, taps, slug catchers, pig traps, etc.)
- 57 incidents (7.5%) were from compressors
- 50 incidents (6.6%) were from metering and regulator facilities
- 9 incidents (1.1%) were from unidentified components.

These data were used to develop the baseline incident rate used in the analysis presented in the EIR. As a result, the results presented in the EIR include potential releases from all project components. The analyses were based on maximum allowable operating pressures and reasonable environmental conditions, which result in a conservative depiction of the average risk posed by the project. See also response B5-790.

It should be noted that the analyses presented in the Final EIR has been revised to address other comments. Please refer to responses to comment letters D1 and D2 for a complete discussion of these changes. Also, please note these changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

B5-790 The EIR assumed a wind speed of 20 miles per hour (mph) for torch fire modeling (refer to Table 6.3-1 of Appendix B, System Safety and Risk of Upset,

of the EIR.) This resulted in a horizontal distance from a full bore release from the 1.5 mile, 16-inch line segment, operating at 1,965 psig of 576 feet to the 8,000 btu/hr-ft² isopleth (refer to Table 6.3.2-1 of Appendix B, System Safety and Risk of Upset, of the EIR). Using a wind speed of 0 mph, as the commenter suggested, reduces the horizontal distance to the 8,000 btu/hr-ft² isopleth from 576 to 531 feet. Increasing the wind speed would increase the downwind distance to the 8,000 btu/hr-ft² isopleth. The torch fire values used in the EIR analysis are reasonable and conservative, but not necessarily worst case.

The EIR assumed a wind speed of 4.5 mph and stability class D for flash fires (refer to Table 6.3-1 of Appendix B, System Safety and Risk of Upset, of the EIR.) This resulted in a horizontal distance from a full-bore release from the 1.5 mile, 16-inch line segment, operating at 1,965 psig of 67 feet to the upper flammability limit (UFL) and 140 feet to the lower flammability limit (LFL) (refer to Table 6.3.2-2 of Appendix B, System Safety and Risk of Upset, of the EIR). If the wind speed were reduced to 0 mph, the horizontal distances to the UFL and LFL would increase to 118 feet and 389 feet, respectively. However, as noted by the commenter, calm wind conditions are only anticipated 25% of the time.

The U.S. Environmental Protection Agency (EPA) generally considers a wind speed of 1.5 meters per second and F stability to result in the worst-case scenario for consequence modeling from stationary sources. For the 1.5 mile, 16-inch line segment, operating at 1,965 psig, this results in a horizontal distance of 90 feet to the UFL and 212 feet to the LFL.

The analysis presented in the EIR is intended to represent the average risk posed by the Proposed Project, using a reasonable risk assessment approach. Determining the frequency of unintentional releases and then applying the worstcase consequences from every release, as suggested by the commenter, would result in an overstatement of risk. Although some releases could result in significant flash fire impacts extending further from the release than modeled in the EIR, some releases could result in shorter impact distances.

It should also be noted that the EIR analysis conservatively utilized the horizontal footprint of a "typical" release at an angle of 45 degrees above the horizon. As depicted in the figure below, for this release angle, the combustible portion of the vapor cloud would be well overhead and a flash fire would not normally impact the public, except for those very near the release. In this case, the wind speed and stability are essentially irrelevant as they relate to the distance from the release that the public may be impacted from a flash fire, since the flash fire would occur



well overhead. And as the horizontal distance increases, the further overhead the flash fire would occur. Similarly, as the angle of the release above the horizon increases, the further overhead the flash fire would occur.

However, a release could occur anywhere around the pipe circumference. In fact, it could be directed below the horizon, in which case it would be deflected by the surrounding soil, pavement, and other surface features, which would add to the mixing with air (similar to the higher wind speed mixing used in the modeling, versus the calm wind proposed by the commenter). It is impossible to predict with any accuracy the velocity, trajectory, and mixing of the gas as it escapes the ground surface.

In response to this comment, a sensitivity analysis has been added to the Final EIR. This analysis presents the flash fire and torch fire impacts for a variety of wind speeds and atmospheric stabilities. This is found in Appendix B of the Final EIR. This addition to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-791** This appendix addresses the risk of pipeline leaks and failures and not leaks from the reservoir. Section D.6 of the EIR describes the risk of potential reservoir leaks.
- **B5-792** The pressure of the SMUD Line 700B varies between 450 and 700 psig. The actual pressure of the line segments between the SMUD Line 700B and the compressor station would depend on the operating mode (injection or withdrawal), the actual operating pressure of SMUD Line 700B, and the flow rate during injection or withdrawal. The maximum allowable operating pressure for this segment would be 1,000 psig, as stated in the EIR.

As indicted in Section B of the EIR, the reservoir is currently pressured to between 1,200 and 1,300 psig and would operate at pressures of up to 1,804 psig. The operating pressure of the line segment between the compressor station and the well site would depend on the mode of operation, the pressure of the gas within the reservoir, and the injection or withdrawal flow rate at the time of operation. In order for the gas to be injected into the reservoir, the lower pressure gas coming from SMUD Line 700B must be compressed to a pressure higher than that within the reservoir at the time of injection. During withdrawals, the operating pressure of this segment would be equal to the reservoir pressure at the well site, less frictional pressure losses due to pipe flow. The normal operating pressure of the segment between the compressor station and the well head is anticipated to vary between 900 and 1,650 psig (refer to comment D2-4). The maximum allowable operating pressure of this segment would be 1,950 psig. During withdrawals from the reservoir, the pressure regulators located at the compressor station would control the pressure of the gas being injected into the line segment between the SMUD Line 700B and the compressor station, which has a lower design pressure, to prevent it from being over-pressurized.

B5-793 In response to this comment, the terminology used for the flow rates in Table 6.3-1 of Appendix B, System Safety and Risk of Upset, has been modified in the Final EIR. The analysis used the correct flow rates. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA guidelines.

- **B5-794** The proposed 16-inch-diameter pipeline is appropriately sized. For example, the 1.5-mile segment between the compressor station and the well site is capable of flowing 200 Mcf per day with an inlet pressure of 1,800 psig and an outlet pressure of approximately 1,780 psig.
- **B5-795** In response to this comment, the following portions of Appendix B, System Safety and Risk of Upset, have been modified in the Final EIR:
 - Section 4.6.5, Well Site Incident Rate
 - Section 6.6, Individual Risk
 - Table 6.7.3-1, Societal Risk Summary for Residential and Commercial Buildings
 - Table 6.7.3-2, Societal Risk Summary for Vehicle Occupants.

These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

B5-796 The EIR assumed that the wind direction was perpendicular to the pipeline, acting in either direction, for all releases; this resulted in the worst-case hazard footprint. For example, as shown in Table 6.3.2-1 of the EIR Appendix B, System Safety and Risk of Upset, the distance from the release to the 8,000 btu/hr-ft² isopleth would be 576 feet for a release from the 16-inch, 1.5-mile pipe segment between the compressor station and the well site, while operating at 1,965 psig. This is the downwind distance from the release. As depicted graphically in Figure 6.3.2-1 of the report, the upwind distance to the 8,000 btu/hr-ft² isopleth would be much less than 576 feet. However, the risk assessment used a hazard footprint of 576 feet on either side of the pipeline, since the wind could act in either direction. Since the wind can only act in one direction at any given time, this approach is conservative.

In response to this comment, a detailed discussion of the Individual Risk Threshold adopted by some jurisdictions and the definition of Individual Risk has been added to the Final EIR. Note that these changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

Individual risk (IR) is most commonly defined as the frequency that an individual may be expected to sustain a given level of harm from the realization of specific hazards, at a specific location, within a specified time interval. Individual risk is typically measured as the probability of a fatality per year. The risk level is typically determined for the maximally exposed individual; in other words, it assumes that a person is present continuously -24 hours per day, 365 days per year. This is found in Appendix B of the Final EIR.

As noted in the Final EIR, the individual risk threshold most commonly used, where one has been established, is an annual likelihood of fatality of one in one million (1:1,000,000, 1 x 10-6, or 1.0E-6 fatalities per year). However, the United States federal and California state governments have not adopted individual risk thresholds; the acceptable level of risk is left to local decision makers and project proponents. Figure 1, below, presents the individual risk thresholds for a number of jurisdictions.



Figure 1 Individual Risk Thresholds by Jurisdiction

The upper end of the green areas represent the de minimus risk values for each jurisdiction; IR risk levels within the green range are considered broadly

acceptable. Risks within this region are considered so low that no further consideration is warranted. In addition, risks within the green band are so low that it is unlikely that any risk reduction would be cost effective. As a result, a benefit – cost analysis of risk reduction is typically not undertaken.

The lower end of the red areas represent the de manifestus risk values; IR risk levels within the red range are considered unacceptable and the risks are not normally justified on any grounds.

Some jurisdictions have adopted a "grey area," where the risk levels may be negotiated or otherwise considered. The United Kingdom developed the ALARP (as low as reasonably practicable) approach. This approach is depicted by the yellow areas in Figure 2.0-1. Generally, risks within the yellow area may be tolerable only if risk reduction is impractical or if its cost is grossly disproportionate to the risk improvement gained. The basic philosophy is to maximize the expected utility of an investment, but not expose anyone to an excessive increase in risk.

The United States government has opposed setting tolerable risk guidelines. A 1997 report of the Presidential Commission on Risk Assessment and Risk Management states, "A strict "bright line" approach to decision making is vulnerable to misapplications since it cannot explicitly reflect uncertainty about risks, population within, variation in susceptibility, community preferences and values, or economic considerations – all of which are legitimate components of any credible risk management process."

The United States is not alone in its opposition to establishing fixed risk thresholds. The vast majority of nations do not have government established risk tolerance criteria. In these cases, risk tolerance is left to individual owners and other decision makers. The United States has an exemplary safety record. Many believe that this is due to two factors. First, the free market allows the application of capital where it will produce the most risk reduction benefits. And secondly, the tort system provides a mechanism to determine third party liability costs in the event of an injury or fatality. These factors generally result in sound risk reduction decisions which are normally based on a cost-benefit analysis (Marszal 2001).

B5-797 The APMs summarized in Table B-5 have not been modified in the Final EIR..

B5-798 In response to this comment, the text of Section 7.2 of Appendix B, System Safety and Risk of Upset, has been modified in the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on

the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-799** In response to this comment, the reference to Weatherwax 2008 included in Section 7.2 of Appendix B, System Safety and Risk of Upset, has been modified in the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-800** The comment relates to documents provided by the applicant's consultant, not the EIR. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-801** As noted in Table 6.3-1 of the EIR in Appendix B, System Safety and Risk of Upset, the analysis assumed continued flow in the system for 5 minutes after leak initiation from a full-bore rupture and 2 hours for smaller releases. Engineering details of the control system are not yet available. Mitigation Measure HAZ-2b*iii* has been proposed, which would require the CPUC to conduct an independent, third-party review of the applicant's construction drawings, supporting calculations, and specifications. The text of this mitigation measure has been modified to ensure that the control system is capable of performance consistent with the risk assessment. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-802** The pressure within the closed-in pipeline segments will be monitored during periods of non-operation, as well as during operation. Since the vast majority of the pipe segments are buried, the temperature will be essentially constant. Although there may be some variation in pressure throughout the day due to changes in temperature, a continued loss of pressure over a longer period would indicate either a pipe leak, leakage through a valve to a lower pressure segment of the system, or leakage through equipment (e.g., valve seals) to the atmosphere. The operation, maintenance, and emergency response details would be provided in the applicant's procedure manuals, which are required by 49 CFR 192. The text of Section 7.2 of Appendix B, System Safety and Risk of Upset, has been modified in the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-803** Real time, 24-hour per day remote monitoring of the pressure in each natural gas pipeline segment, as included in the applicant's Proposed Project, is not required by the applicable regulations and is not typically provided by natural gas transmission pipeline operators. In addition, most transmission pipelines flow gas continually; as a result, the "shut-in" pressure tests that would be conducted during periods where the system is not flowing gas are also not normally conducted.
- **B5-804** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-805** The EIR is clear in its statement that software-based leak detection will be incorporated into the Proposed Project.
- **B5-806** Additional APMs have not been added to the EIR.
- B5-807 Compressor building safeguards are presented in response B5-384. The standards for natural gas storage facilities and compressor stations are included in 49 CFR 192. These standards are summarized in Section 2.0 of Appendix B, System Safety and Risk of Upset, of the EIR.

The Proposed Project is using modern equipment and technology for its project. There is no requirement for the discussion of best available technology.

- **B5-808** Motion Detectors, security cameras, etc. are discussed in Section 7.2 of Appendix B, System Safety and Risk of Upset, of the EIR.
- **B5-809** Piping and Instrumentation Drawings and other detailed engineering drawings were not available when the Draft EIR was prepared. Mitigation Measure HAZ-2b*ii* has been proposed, which would require the CPUC to conduct an independent, third-party review of the applicant's construction drawings, supporting calculations, and specifications. This will ensure that the control system is capable of performance consistent with the risk assessment presented in the EIR.
- **B5-810** In response to this comment, the text of Section 7.2 of Appendix B, System Safety and Risk of Upset, has been modified in the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **B5-811** The standards for natural gas transmission facilities are included in 49 CFR 192. These standards are summarized in Section 2.0 of Appendix B, System Safety and Risk of Upset, of the EIR.
- **B5-812** In response to this comment, the text of Section 7.2 of Appendix B, System Safety and Risk of Upset, has been modified in the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **BS-813** In response to this comment, the reference to Weatherwax 2008, included in Section 7.2 of Appendix B, System Safety and Risk of Upset, has been modified in the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-814** This comment is redacted and cannot be responded to.
- **B5-815** This comment is redacted and cannot be responded to.
- **B5-816** This comment is redacted and cannot be responded to.
- **B5-817** This comment is redacted and cannot be responded to.
- **B5-818** The Golder report was referenced in the EIR but was not incorporated by reference and is not an appendix to the document. The report was independently reviewed and many points in the report were not agreed with by the EIR preparers. Therefore, the comment is noted, but the technical issues are not part of the EIR and will not be responded to.
- **B5-819** See response B5-818.
- **B5-820** See response B5-818.
- **B5-821** See response B5-818.
- **B5-822** See response B5-818.
- **B5-823** See response B5-818.
- **B5-824** See response B5-818.
- **B5-825** See response B5-818.

- **B5-826** See response B5-818.
- **B5-827** See response B5-818.
- **B5-828** See response B5-818.
- **B5-829** See response B5-818.
- **B5-830** See response B5-818.
- **B5-831** See response B5-818.
- **B5-832** See response B5-818.
- **B5-833** See response B5-818.
- **B5-834** See response B5-818.
- **B5-835** See response B5-818.
- **B5-836** See response B5-818.
- **B5-837** See response B5-818.
- **B5-838** See response B5-818.
- **B5-839** See response B5-818.
- **B5-840** See response B5-818.
- **B5-841** See response B5-818.
- **B5-842** See response B5-818.
- **B5-843** The Mannon Report was referenced in the EIR, but was not incorporated by reference. Please refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process.
- **B5-844** See response B5-843.
- **B5-845** See response B5-843.
- **B5-846** See response B5-843.
- **B5-847** See response B5-843.

- **B5-848** See response B5-843.
- **B5-849** See response B5-843.
- **B5-850** See response B5-843.
- **B5-851** The Sierra Energy and Risk Assessment report was referenced in the EIR but was not incorporated by reference. Much of the analysis was not agreed with and not used in the EIR. Please refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process.
- **B5-852** See response B5-851.
- **B5-853** See response B5-851.
- **B5-854** See response B5-851.
- **B5-855** See response B5-851.
- **B5-856** See response B5-851.
- **B5-857** See response B5-851.
- **B5-858** See response B5-851.
- **B5-859** See response B5-851.
- **B5-860** See response B5-851.
- **B5-861** See response B5-851.
- **B5-862** See response B5-851.
- **B5-863** See response B5-851.
- **B5-864** See response B5-851.
- **B5-865** See response B5-851.
- **B5-866** See response B5-851.
- **B5-867** See response B5-851.
- **B5-868** See response B5-851.

- **B5-869** See response B5-851.
- **B5-870** See response B5-851.
- **B5-871** See response B5-851.
- **B5-872** Comment noted. The letter from J.F. Mathews is not a portion of the EIR and was not incorporated by reference. Please refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process.
- **B5-873** See response B5-872. As part of the permitting process for the field, DOGGR will evaluate all plugged wells and make sure that they are in conformance to withstand the Proposed Project.
- **B5-874** See response B5-873.
- **B5-875** This portion of the report has nothing to do with the Florin Gas Field.
- **B5-876** Although the Ryder Scott document was referenced in the EIR, the document was not incorporated by reference and was independently reviewed for the EIR. Independent conclusions were made for the EIR. Please refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process.
- **B5-877** See response B5-876.
- **B5-878** See response B5-876.
- **B5-879** See response B5-876.
- **B5-880** See response B5-876.
- **B5-881** See response B5-876.
- **B5-882** See response B5-876.
- **B5-883** See response B5-876.
- **B5-884** See response B5-876.
- **B5-885** See response B5-876.
- **B5-886** See response B5-876.

- **B5-887** See response B5-876.
- **B5-888** See response B5-876.
- **B5-889** See response B5-876.
- **B5-890** See response B5-876.
- **B5-891** See response B5-876.
- **B5-892** See response B5-876.
- **B5-893** See response B5-876.
- **B5-894** See response B5-876.
- **B5-895** See response B5-876.
- **B5-896** See response B5-876.
- **B5-897** See response B5-876.
- **B5-898** See response B5-876.
- **B5-899** See response B5-876.
- **B5-900** See response B5-876.
- **B5-901** See response B5-876.
- **B5-902** See response B5-876.
- **B5-903** See response B5-876.
- **B5-904** See response B5-876.
- **B5-905** See response B5-876.
- **B5-906** See response B5-876.
- **B5-907** See response B5-876.
- **B5-908** This report, although referenced in the EIR, was not incorporated by reference. The conclusions of the report in many cases were in conflict with the EIR. Please

refer to response A11-13 regarding the listing of reference materials used as part of the environmental documentation process.

- **B5-909** See response B5-908.
- **B5-910** See response B5-908.
- **B5-911** See response B5-908.
- **B5-912** See response B5-908.
- **B5-913** See response B5-908.
- **B5-914** See response B5-908.
- **B5-915** See response B5-908.
- **B5-916** See response B5-908.
- **B5-917** See response B5-908.
- **B5-918** See response B5-908.
- **B5-919** See response B5-908.
- **B5-920** See response B5-908.
- **B5-921** See response B5-908.
- **B5-922** See response B5-908.
- **B5-923** See response B5-908.
- **B5-924** See response B5-908.
- **B5-925** Report noted. This report does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-926** Comment noted. Please refer to responses B5-937 through B5-950.
- **B5-927** The analysis of the groundwater resources and quality in the EIR as modified provides an adequate analysis for the determination of impacts of the Proposed Project.

- **B5-928** In response to this comment, the Final EIR has been revised to correct the spelling of Solano County. This change to the EIR does not change the EIR conclusions or raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-929** The discussion of the aquifers is accurate as described in the EIR.
- **B5-930** Please refer to response to document A9 from the California Regional Water Quality Control Board Valley Region. It is unclear if the Proposed Project will impact the groundwater and that is why the impact was considered significant and unavoidable.

Section F.4.6 of the EIR addresses cumulative impacts to hydrology and water quality.

- **B5-931** Please see the revised Section D.7, Hydrology and Water Quality of the EIR, which describes the impacts associated with the remediation activities. Dewatering associated with the project will be limited.
- **B5-932** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to the Mitigation Monitoring and Reporting Plan.
- **B5-933** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to the Mitigation Monitoring and Reporting Plan.
- **B5-934** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to the Mitigation Monitoring and Reporting Plan.
- **B5-935** Please refer to response B5-332 with regard to APMs and response A11-3 with regard to the Mitigation Monitoring and Reporting Plan.
- **B5-936** Mud used in the HDD and other applications will be non-toxic and are planned to be contained and not released to the environment. Although sedimentation could occur if a frac-out were to happen, this will be contained and cleaned up. Also see the modified Section D.7, Hydrology and Water Quality, of the Final EIR that further clarifies the use of drilling mud. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **B5-937** The CVRWQCB will be a reviewing agency for any plans. Please see their comment letter, Document No. A9. Although there is a potential for leakage of gas, the leakage of saline water into the aquifers is not considered significant.
- **B5-938** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **B5-939** Please refer to responses B5-29, B5-36, and B5-321.
- **B5-940** Section F.3 of the EIR, Significant Environmental Effects that Cannot Be Avoided, states that (as discussed in Section D.7.3.3, Hydrology and Water Quality Impact Analysis, of the EIR) an analysis by Golder Associates (2008) of the cap rock integrity of the Florin Gas Field and the risk of release of gas due to failure of the cap rock is low given the increase in gas pressure. Although the likelihood of this occurrence is low, and mitigation is provided to reduce this impact, this impact is considered significant and unavoidable (Class I) because the duration of this impact and effectiveness of provided mitigation is not known.
- **B5-941** The comment is noted. Please refer to responses B5-937 through B5-950 for specific responses to comments raised on the EIR. Please refer to response A11-13 regarding applicable studies and availability to the public.
- **B5-942** Qualifications noted. This comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

Save the Foothills (Charles M. Ashley) No Date

- **B6-1** The comment's opposition to the project is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation. Please refer to response B5-2 regarding the potential for gas to leak into the overlying groundwater aquifer and ground surface.
- **B6-2** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

Remy, Thomas, Moose, and Manley, LLP (Tina Thomas) on Behalf of Avondale Glen Elder Neighborhood Association (AGENA) Dated June 23, 2009

B7-1 Receipt of this comment letter and associated attachments, an exact copy of the comment letter transmitted via email by AGENA, is acknowledged. For responses to comments please refer to Document No. B5.

C. Individuals

Brenda S. Holloway Dated April 28, 2009

- C1-1 The commenter's opposition to the EIR is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation.
- C1-2 The commenter's concern for the lives and health of residents in the area is noted. Section D.6 of the EIR evaluates public health and safety impacts of release of natural gas from the Proposed Project and concludes that that there is a low potential that gas could migrate to the overlying groundwater aquifer and/or to the ground surface. Although a remote possibility, gas migration could result in groundwater impacts, health effects, and potentially flash fires or explosions. The EIR concludes that despite implementation of APMs 5 and 8 and Mitigation Measures HAZ-2ai and HAZ-2aii and HAZ-2bi through HAZ-2bix, this impact would be considered significant. The CPUC will use the Final EIR, in conjunction with other information developed in the CPUC's formal record, to act on SNGS, LLC's application for a CPCN for construction and operation of the Proposed Project. If the CPUC approves a project with significant and unmitigable impacts, it must state why in a "Statement of Overriding Considerations," which would be included in the CPUC's decision on the application.
- C1-3 It is unclear what specific dangers the commenter refers to in this comment; therefore, no additional response can be provided or required.
- C1-4 The commenter's suggestion to relocate the Proposed Project is noted. Please refer to response A11-20 regarding alternatives, including alternative locations considered in the EIR

Ruth Kahle Dated April 28, 2009

- C2-1 The comment's support of the EIR is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation.
- C2-2 The comment is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation.

Carrol Kuzma Dated April 28, 2009

C3-1 The comment's support of the EIR is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation.

Gloria Peters Dated April 28, 2009

- C4-1 The comment's opposition to the EIR is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation.
- C4-2 The comment regarding the history of the neighborhood is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- C4-3 The commenter's assertion is correct that it cannot be determined with absolute certainty that gas migration or eruption would not result in a health hazard. However, the statement that this is of no interest to the CPUC is incorrect. Section D.6 of the EIR evaluates public health and safety impacts resulting from accidental release of natural gas from the Proposed Project and concludes that there is a low potential that gas could migrate to the overlying groundwater aquifer and/or to the ground surface. Although a remote possibility, gas migration could result in groundwater impacts, health effects, and potentially flash fires or explosions. The EIR concludes that despite implementation of APMs 5 and 8 and Mitigation Measures HAZ-2ai and HAZ-2aii and HAZ-2bi through HAZ-2bix, this impact would be considered significant. The CPUC will use the Final EIR, in conjunction with other information developed in the CPUC's formal record, to act on SNGS, LLC's application for a CPCN for construction and operation of the Proposed Project. If the CPUC approves a project with significant and unmitigable impacts, it must state why in a "Statement of Overriding Considerations," which would be included in the CPUC's decision on the application.
- C4-4 Please refer to response A11-20 regarding alternatives considered in the Draft EIR.

Keith and Sylvia Roberts Dated April 28, 2009

- **C5-1** The comment's support of the EIR is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation.
- **C5-2** The comment is noted and the CPUC will indeed consider these factors during project deliberation.

Larry D. Stamm Dated April 28, 2009

- C6-1 The comment's opposition to the EIR is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation. Please refer to response A11-20 regarding alternatives considered in the EIR.
- C6-2 The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- C6-3 The CPUC will consider impacts related to potential hazards in project deliberation. Under CEQA requirements, the CPUC will determine the adequacy of the Final EIR and, if adequate, will certify the document as complying with CEQA. If the CPUC approves a project with significant and unmitigable impacts, it must state why in a "Statement of Overriding Considerations," which would be included in the CPUC's decision on the project's application. Refer to response A11-20 regarding alternatives considered in the Draft EIR
- C6-4 The commenter is incorrect in their reference to aboveground pipes near Power Inn Road. Pipeline segment one, the portion of the pipeline running parallel to Power Inn Road, would be installed underground at a minimum depth of 6 feet below grade, thereby eliminating the risk of auto collision that is the commenter's concern.

Marcie Stamm Dated April 28, 2009

- C7-1 Please refer to response C1-2 regarding concern over potential hazards related to the Proposed Project.
- C7-2 It is unknown what existing pipes the commenter refers to as the project proposes the installation of two new pipeline segments to convey natural gas from the wellhead site to the compressor station and from the compressor station to an existing SMUD Line 700.
- **C7-3** The comment regarding historical use of the Florin Gas Field is noted. Refer to response C4-3 regarding the CPUC's concern for public health and safety.

Russell T. Williams Dated April 28, 2009

C8-1 The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

Russell T. Williams Dated April 28, 2009

C9-1 The comment's support of the EIR is noted. The commenter's opinion will be included in the project record and the CPUC will consider it during project deliberation.

Phil and Karen Shipley Dated June 18, 2009

- C10-1 The comment is noted. As stated in Section D.6 of the EIR, despite implementation of APMs 5 and 8 and Mitigation Measures HAZ-2a*i* and HAZ-2a*ii* and HAZ-2b*i* through HAZ-2b*ix*, which would reduce the already low potential for hazards related to an unintentional gas release, impacts would remain significant and unavoidable. The CPUC will use the Final EIR, in conjunction with other information developed in the CPUC's formal record, to act on SNGS, LLC's application for a CPCN for construction and operation of the Proposed Project. If the CPUC approves a project with significant and unmitigable impacts, it must state why in a "Statement of Overriding Considerations," which would be included in the CPUC's decision on the application.
- C10-2 The Draft EIR does not consider property values in the context of CEQA and project effects on property values are not considered significant impacts under CEQA Guidelines Section 15131. In general, claims of diminished property value through decreased marketability of a subject property are based on the reported concern about hazards to human health and safety; and increased noise, traffic, and visual impacts associated with living in proximity to locally unwanted land uses, such as underground gas facilities, power plants, freeways, high voltage transmission lines, landfills, and hazardous waste sites.

While nearby property owners may have the perception that their homes will diminish in value because of the project, the actual loss of property value and potential effects can only be tested through data from home sales. Based on information from extensive literature reviews of this subject, data should be collected on as many market sales transactions as possible within the impact area and within one or more similar control areas over a period of several years prior to an awareness of a proposed project to accurately reflect what buyers and sellers actually do, as opposed to what potential buyers say they might do under specified hypothetical circumstances. This type of data collection and study is beyond the scope of an environmental review document under CEQA. A market study of current and future values of properties potentially affected by the Proposed Project would have to be conducted to evaluate property values with and without the Proposed Project being constructed.

C10-3 Please refer to responses C10-1 and C10-2.

D. The Applicant

Alfred F. Jahns Dated April 16, 2009

- **D1-1** The comment is noted. Refer to responses D1-2 through D1-6 for responses to preliminary comments by SNGS, LLC. The spreadsheets, supporting calculations, and other information documenting the determination of individual and societal risk were provided to SNGS, LLC in early May 2009.
- **D1-2** This comment relates to several different topics, which are addressed individually below.

Data to Support EIR Risk Assessment Methodology

All raw release modeling data files, spreadsheets documenting the determination of aggregate and societal risk, and other supporting calculations were provided to the applicant in early May 2009. These data have been reviewed by the applicant and are the subject of Document No. D2.

12-Inch-Diameter Line Segment

The 12-inch-diameter, 0.4-mile pipe segment was removed from the project after the draft Appendix B-1, System Safety and Risk of Upset (DEIR Study), of the EIR had been prepared. Tables 6.3-1, 6.3.1-1, 6.3.2-1, 6.3.2-2, 6.5.1-1, 6.6.3-1, and 6.6.3-2 of the DEIR Study have been revised for the Final EIR; Table 6.5.2-1 has been deleted. The text summarizing the results has also been modified to eliminate the impacts associated with the 12-inch pipeline segment.

In response to this comment, the annual risk of fatality presented in the Final EIR has been revised to reflect the elimination of the 12-inch line segment. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088(b) of the CEQA guidelines.

Consideration of Applicant Proposed Measures

The DEIR Study considers the applicant proposed measures (APMs) that would be incorporated into the project. For example, as discussed in Section 4.6.1 of the DEIR Study, the baseline frequency of reportable third-party damage incidents was reduced by 33%, from 0.064 to 0.043 incidents per 1,000 mile-years to account for the increased depth of cover and additional wall thickness proposed by the applicant. The Weatherwax study reduced the frequency of third-party releases by a factor of four; this reduction is not supported by the European Study used to substantiate the effectiveness of the applicant's proposed mitigation in the DEIR Study.

As discussed in Section 4.6.2 of the DEIR Study, the baseline frequency of reportable external corrosion-caused incidents was reduced by 33%, from 0.041 to 0.027 incidents per 1,000 mile-years to account for the fact that the pipeline will be operated at ambient temperature, using modern external coatings, with a cathodic protection system. It should be noted that this value is intended to reflect the system performance over the entire life of the project. During the early years of operation, the frequency of external corrosion-caused incidents will likely approach zero. The Weatherwax study reduced the frequency of external corrosion-caused releases by a factor of 10.

Although many of the APMs will reduce the consequences of a release, they will not affect the likelihood of a release, as summarized below:

- Nondestructive testing of 100% of the circumferential welds is required by 49 CFR 192.243 in Class 3 and 4 areas. As a result, the beneficial impact of this APM is already reflected in the U.S. Department of Transportation (DOT) gas pipeline statistics.
- The sectionalizing valve will not affect the likelihood of a pipeline release.
- The control system will not affect the likelihood of a pipeline release.
- Shutting-in the pipeline during periods when gas is not flowing will not affect the likelihood of a pipeline release.
- The installation of remotely operated emergency shut-down valves will not affect the likelihood of a pipeline release.
- The odorization of the gas will not affect the likelihood of a pipeline release.
- The software-based leak detection system will not affect the likelihood of a pipeline release.

Individual Risk Result

The commenter states that, "...proper adjustments of the EDM Assessment to take into account the design and operating characteristics of the proposed SNGS Project would result in a reduction by approximately a full order of magnitude (i.e., a factor of -10) in the value of individual risk calculation."

In order to assess this comment, the frequencies of reported incidents in various area classes and decades of construction have been analyzed.

Incident Frequency by Area Classification

The raw gas transmission pipeline incident database was downloaded from the U.S. DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA) website on July 3, 2009, to facilitate the analysis. All incidents that occurred outside the period between January 1, 2002, and December 31, 2008, were deleted. All incidents that were indicated to have occurred on an "offshore" or "gathering" line segment were also deleted. The remaining 614 incidents were then analyzed.

For the seven-year period from 2002 through 2008, there were five incidents reported in Class 4 areas, 99 incidents reported in Class 3 areas, 48 incidents reported in Class 2 areas, and 444 reported incidents in Class 1 areas. There were an additional 18 reported incidents where the area class were not identified. According to the 2008 gas transmission line annual report, there were 1,203 miles of pipe in Class 4 areas; 33,031 miles of pipe in Class 3 areas; 30,161 miles in Class 2 areas; and 224,634 miles in Class 1 areas. This results in the following incident rates by area class:

- Class 4 Areas 0.594 incidents per 1,000 mile-years
- Class 3 Areas 0.428 incidents per 1,000 mile-years
- Class 2 Areas 0.227 incidents per 1,000 mile- years
- Class 1 Areas 0.282 incidents per 1,000 mile-years.

These data, for reported incidents from onshore gas transmission pipelines from 2002 through 2008, are presented graphically below.



From the above data, it is clear that the frequency of reportable incidents has been higher in Class 3 and 4 areas, despite the more stringent regulatory requirements imposed on pipelines located in these areas (e.g., pipeline integrity management programs, lower operating stress levels, more stringent non-destructive testing requirements). The baseline frequency of U.S. DOT reportable unintentional releases used in the DEIR Study was 0.194 incidents per 1,000 mile-years, reflecting the APM. This value is less than one-half the value observed on pipelines located in Class 3 areas (0.428 incidents per 1,000 mile-years) from 2002 through 2008, reflecting the APM.

Incident Frequency by Pipe Age

The frequency of reported incidents for various ages of pipe is difficult to analyze using the USDOT database. In an attempt to provide a gross analysis, the raw gas transmission pipeline incident database was downloaded from the PHMSA website on July 3, 2009, to facilitate this analysis. All incidents that occurred outside the period of January 1, 2002, and December 31, 2008, were deleted. All incidents that were indicated to have occurred on an "offshore" or "gathering" line segment were also deleted. The remaining 614 incidents were then analyzed. For the seven-year period from 2002 through 2008, the year of manufacture of the leaking component was recorded for 490 of 614 (80%) of the incidents. The

mileages of pipelines by decade of construction were obtained from the 2008 gas transmission line annual report. The results are summarized below:

- 2000 through 2008 Pipe Construction 0.296 incidents per 1,000 mileyears (47 incidents; 22,688 miles of pipe)
- 1990 through 1999 Pipe Construction 0.184 incidents per 1,000 mile years (40 incidents; 31,069 miles of pipe)
- 1980 through 1989 Pipe Construction 0.268 incidents per 1,000 mileyears (49 incidents; 26,099 miles of pipe)
- 1970 through 1979 Pipe Construction 0.260 incidents per 1,000 mileyears (54 incidents; 29,620 miles of pipe)
- 1960 through 1969 Pipe Construction 0.233 incidents per 1,000 mileyears (115 incidents; 70,448 miles of pipe)
- 1950 through 1959 Pipe Construction 0.231 incidents per 1,000 mileyears (113 incidents; 69,863 miles of pipe)
- 1940 through 1949 Pipe Construction 0.240 incidents per 1,000 mileyears (37 incidents; 22,000 miles of pipe)
- Pre-1940 Pipe Construction 0.439 incidents per 1,000 mile-years (35 incidents; 11,398 miles of pipe)
- Unknown 124 incidents; 5,847 miles of pipe.

These data, for reported incidents from onshore gas transmission pipelines from 2002 through 2008, are presented graphically below.



The baseline frequency of U.S. DOT reportable unintentional releases used in the DEIR Study was 0.194 incidents per 1,000 mile-years. This value is roughly one-third less than the value observed over the past seven years for pipelines constructed from 2000 through 2008, reflecting the APM.

It should be noted however that there may be serious errors in the gross analysis summarized above. Specifically, although a component or pipe may have been installed between 2000 and 2008, it may have been installed on a pipeline constructed during an earlier decade. For example, a valve may have been replaced in 2003 on a system originally constructed in 1965. In this case, the pipelines mileage would be included in the pipe constructed between 1960 and 1969. But the leak incident would have been included in the tally for leaks occurring between 2000 and 2008. As a result, leaks occurring from components installed on older pipe segments would skew the results, showing higher leak incident rates for more modern pipelines than actually occurred.

The only known pipeline risk data source which included a complete inventory of every pipeline component by age, is the <u>California Hazardous Liquid Pipeline</u> <u>Risk Assessment</u>, referenced in the DEIR Study. These data are presented in Table 4.6.2-1 of the DEIR Study. These data, combined with consideration of the actual pipe operating temperature and the applicant proposed mitigation, were used to develop the baseline frequency of anticipated releases due to external

corrosion. The discussion of the development of this baseline frequency is presented in Section 4.6.2 of the DEIR Study.

Frequency of Fatalities Rate

The table of "significant" incidents from onshore gas transmission pipelines, pulled directly from the PHSMA website on July 3, 2009, is presented below. (Similar tables are available for offshore and gathering lines.)

Table 1
National Gas Transmission Onshore: Significant Incidents Summary
Statistics: 1988–2008

Year	Number	Fatalities	Injuries	Property Damage
1988	31	2	9	\$6,707,494
1989	29	4	15	\$16,303,907
1990	36	0	15	\$12,752,888
1991	27	0	11	\$14,456,387
1992	32	3	14	\$13,078,380
1993	43	1	16	\$21,762,671
1994	34	0	15	\$53,262,153
1995	22	0	7	\$8,269,519
1996	34	1	5	\$12,589,358
1997	26	1	5	\$11,068,642
1998	40	1	11	\$40,150,999
1999	34	2	8	\$19,370,527
2000	45	15	16	\$16,897,783
2001	45	2	5	\$12,977,700
2002	40	1	4	\$21,306,317
2003	61	1	8	\$52,523,788
2004	43	0	2	\$10,045,994
2005	64	0	5	\$134,090,086
2006	60	3	4	\$29,028,775
2007	55	2	7	\$40,022,492
2008	45	0	5	\$105,159,045
Total	846	39	187	\$651,824,913

The PHMSA onshore gas transmission pipeline incident report data presented above was independently reconciled to within less than 4% of the data included in the PHMSA transmission pipeline raw incident database. The raw transmission line incident database was downloaded from the PHMSA website on July 3, 2009. All incidents that occurred outside the period of January 1, 2002, and December 31, 2008, were deleted. All incidents that were indicated to have occurred on an
"offshore" or "gathering" line segment were also deleted. The remaining data was filtered to only include those incidents that resulted in \$50,000 or greater damage in property value, an injury, or a fatality. This resulted in 535 incidents for the 2002 through 2008 period, slightly more than the 516 incidents reported by PHMSA for the same period in the above table. The difference is that the PHMSA report reflects adjustments in the property damage to convert the result to 1984 constant dollars; this results in somewhat fewer incidents being included in their report than the reconciliation, which did not include an adjustment for inflation.

From 1988 through 2008, 6 of the 39 fatalities (15%) that have resulted from unintentional releases from onshore gas transmission pipelines have occurred in Class 3 and 4 areas. Since this data set is so small, a single catastrophic incident could drastically skew the result and any conclusions that might be drawn. According to the USDOT 2008 Annual Report, 34,234 miles (11.8%) of the 289.028 miles of onshore transmission pipelines were located in Class 3 and 4 areas. As a result, it is clear that the frequency of fatalities has been higher in Class 3 and 4 areas than in Class 1 and 2 areas, even though the regulatory requirements for lines in these urban areas are more stringent. Over this 21 year period, the frequency of fatalities in Class 3 and 4 areas has been 0.0083 fatalities per 1,000 mile-years. Applying this frequency of fatalities to the 2.3 miles of proposed 16-inch pipeline only (excluding the well site) results in an annual probability of fatality of 1:52,000. The annual probability of fatality presented in Table 5.2-1 of the DEIR Study, which presents the findings of the qualitative risk assessment, is 1:93,000; roughly one-half the frequency one would predict using historic data for Class 3 and 4 areas. This reduction reflects the applicant proposed mitigation, among other factors discussed in the EIR. (It should be noted that the qualitative results presented in Table 5.2-1 of the EIR have been revised to an annual probability of fatality of 1:109,000, reflecting the deletion of the 0.4mile 12-inch diameter pipeline segment.)

D1-3 Table II-3 of the Weatherwax report uses a baseline frequency of 0.082 incidents per 1,000 mile-years, citing the Gas Research Institute (GRI) Report 00/0207, *Gas Transmission System Integrity Performance Indicators by Incident Data Analysis*, January 11, 2001, as the source. However, Tables 5-3 and 5-4 of the GRI Report provide incident rates of 0.180 incidents per 1,000 mile-years for Interstate Transmission Pipelines and 0.190 incidents per 1,000 mile-years for Intrastate Transmission Pipelines, for the study period of 1985 through 1999.

The value used by Weatherwax (0.082 incidents per 1,000 mile-years) is less than one-half the value presented in the GRI Report. Weatherwax then reduced the

frequency of external corrosion-caused releases by a factor of 10, the frequency of outside force-caused releases by a factor of 4, and the frequency of releases by "other" causes by a factor of 2. The resulting Weatherwax "adjusted" incident rate of 0.0692 incidents per 1,000 mile-years is roughly one-third the values presented for interstate and intrastate transmission pipelines in the GRI Report (refer to Tables 5-3 and 5-4 of the GRI Report).

As noted in Figure 4.2-1 of the DEIR Study, the frequency of gas transmission pipeline releases has increased over the last few years; this increase occurred after the study period of the GRI Report, which analyzed releases from 1985 through 1999. As stated in Table 4.5-1 of the DEIR Study, the frequency of onshore gas transmission line reported incidents was 0.29 incidents per 1,000 mile-years from 2002 through 2007. This value is roughly 60% higher than the value presented in the GRI Report (0.18 incidents per 1,000 mile-years) and over three and one-half times the baseline value used by Weatherwax before adjustments (0.082 incidents per 1,000 mile-years); it is over four times the "adjusted" value used by Weatherwax (0.0692 incidents per 1,000 mile-years). In other words, Weatherwax used a baseline incident rate that was only 28% of the actual incident rate observed for onshore gas transmission lines from 2002 through 2008; the "adjusted" Weatherwax incident rate was only 24% of the actual incident rate for this period.

The DEIR Study adjusted the actual frequency of onshore gas transmission line incidents (0.29 incidents per 1,000 mile-years) to reflect the APMs that would be incorporated into the project. For example, as discussed in Section 4.6.1 of the DEIR Study, the baseline frequency of reportable third-party damage incidents was reduced by 33%, from 0.064 to 0.043 incidents per 1,000 mile-years to account for the increased depth of cover and additional wall thickness proposed by the applicant. The Weatherwax study, which used an initial baseline release frequency that was less than one-third the actual frequency experienced by onshore gas transmission pipelines from 2002 through 2007, then reduced this baseline frequency of third-party releases further by a factor of four, resulting in a frequency of third-party damage caused releases essentially one-twelfth the value actually observed.

As discussed in Section 4.6.2 of the DEIR Study, the baseline frequency of reportable external corrosion-caused incidents was reduced by 33%, from 0.041 to 0.027 incidents per 1,000 mile-years to account for the fact that the pipeline would be operated at ambient temperature, using modern external coatings, with a cathodic protection system. It should be noted that this value is intended to reflect

the system performance over the entire life of the project. During the early years of operation, the frequency of external corrosion-caused incidents will likely approach zero. The Weatherwax study, which used an initial baseline release frequency that was less than one-third the actual frequency experienced by onshore gas transmission pipelines from 2002 through 2007, reduced the frequency of external corrosion-caused releases further by a factor of 10, resulting in a frequency of external corrosion-caused releases essentially one-thirtieth the value actually observed.

The commenter notes that the baseline frequency of 0.29 incidents per 1,000 mileyears used in the DEIR Study before applying reductions to reflect the applicant's proposed mitigation, includes pipelines that are decades old. The commenter is correct. (See also response to comment D1-2 which includes a more thorough response to the pipe age issue.)

The commenter also notes that the baseline frequency of 0.29 incidents per 1,000 mile-years used in the DEIR Study, before applying adjustments to reflect the applicant's proposed mitigation, includes pipelines that are located in other area classes. The commenter also notes that these pipelines are not subject to the pipeline integrity management programs required in high consequence areas. The actual frequency of releases from onshore gas transmission pipelines located in Class 3 Areas from 2002 through 2008 was 0.428 incidents per 1,000 mile-years. (See also response D1-2, which includes a more thorough response to the area class issue.) This actual frequency is nearly 50% higher than the baseline frequency of 0.29 incidents per 1,000 mile-years used in the DEIR Study, before applying reductions to reflect the applicant's proposed mitigation. It is more than twice the baseline value of 0.194 incidents per 1,000 mile-years used in the quantitative risk assessment presented in the DEIR Study after making reductions to reflect the applicant's proposed mitigation. It should be noted that the commenter is correct, pipelines within Class 3 areas are subject to pipeline integrity management plans, lower operating stress levels (i.e., greater pipe wall thickness), increased non destructive testing requirements, etc.

D1-4 This comment relates to several different topics, which are addressed individually below.

Normal Operating Pressure Versus Maximum Allowable Operating Pressure

The commenter notes that the SMUD line will normally be operated at 600 to 700 psig, well below the maximum allowable operating pressure of 1,000 psig as used in the release modeling presented in the DEIR Study. The commenter notes that

the segment between the compressor station and the well site would operate between 900 and 1650 psig, less than the 1,965 psig maximum allowable operating pressure evaluated in the DEIR Study. It should be noted that this statement conflicts with Section B.2.1 of the EIR, which references a reservoir operating pressure of 1,804 psig (Ryder Scott Company 2008). The estimated current pressure of the reservoir is between 1,200 to 1,300 psig (SNGS, LLC 2008).

Although the pipe segments will typically be operated at pressures less than the maximum allowable operating pressure, the applicant could operate the pipe segments at the higher pressures, up to the maximum allowable operating pressure.

The differences in the impact distances for the anticipated operating pressures versus the maximum allowable operating pressures are summarized in the tables that follow in the next section (refer to Well Casing Diameter, below.) As indicated, the differences in impact distances are minor (roughly 15%). Using the anticipated normal operating pressures instead of the maximum allowable operating pressures would result in insignificant changes to the lengths of line that would pose significant impacts to building and vehicle occupants as presented in Tables 6.5.1-1 and 6.5.2-1 of the DEIR Study, which addresses aggregate risk. As a result, using the normal operating pressures instead of the maximum allowable operating pressures would result in minor changes to the aggregate and societal risk findings presented in the DEIR Study.

The following items are reflected in the data presented in the DEIR and the following tables to facilitate a comparison of the results using normal operating versus maximum allowable operating pressures. However, these items have been revised in the Final EIR. A similar difference would result when comparing the impact distance results at normal operating versus maximum allowable operating pressures using the revised data inputs used in the Final EIR.

- Mass Flow Release Rate The torch fire data presented in the EIR and the table below are based on the mass flow rate one second after release initiation. This has been revised in the Final EIR to reflect the average mass flow release rate from zero (0) to sixty (60) seconds after release initiation. (See also response to comment D2-124.)
- Explosion The explosion inputs have been revised in the Final EIR to reflect medium fuel reactivity and low obstacle density, from low fuel

reactivity and medium obstacle density. (See the response to comment D2-11.)

Well Casing Diameter

At the time the DEIR Study was prepared, the diameter of the well casings was unknown. Twenty-inch outside diameter casing was assumed, based on the casing size from a recent natural gas storage project. However, the Applicant has advised that the actual casing diameter would be 8-inches (7-inches internal diameter). The results in the following tables reflect the changes in the impact distances using the smaller diameter casing.

In response to this comment, Tables 6.3.1-1, 6.3.2-1, and 6.3.2-2, and Sections 6.5.1 and 6.5.2 of the DEIR Study, have been modified in the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

	Maximum Allowable Operating Pressure	Horizontal Distance from Unintentional Release (feet		
Release	Normal Operating Pressure	1.00 psig Overpressure	0.70 psig Overpressure	0.10 psig Overpressure
16-inch, 1.5-mile Pipeline Full Bore Release @ 45° above horizon	1,965 psig	203	290	2,030
	1,450 psig	173	246	1,726
16-inch, 1.5-mile Pipeline 1-inch Diameter Release @ 45° above horizon	1,965 psig	48	68	479
	1,450 psig	40	58	398
16-inch, 0.8-mile Pipeline Full Bore Release @ 45° above horizon	1,000 psig	122	175	1,223
	650 psig	104	148	1,036
16-inch, 0.8-mile Pipeline 1-inch Diameter Release @ 45° above horizon	1,000 psig	32	46	320
	650 psig	26	37	261
	1,450 psig	128	183	1,286
	1,450 psig	38	54	376

Table 2Vapor Cloud Explosion Modeling Results

	Maximum Allowable Operating Pressure	Horizontal Distance from Unintentional Release (feet)		
Release	Normal Operating Pressure	8,000 btu/hr-ft ²	3,500 btu/hr-ft ²	1,600 btu/hr-ft ²
16-inch, 1.5-mile Pipeline Full Bore Release @ 45° above horizon	1,965 psig	576	823	1,067
	1,450 psig	499	708	921
16-inch, 1.5-mile Pipeline 1-inch Diameter Release @ 45° above horizon	1,965 psig	67	93	123
	1,450 psig	59	80	106
16-inch, 0.8-mile Pipeline Full Bore Release @ 45° above horizon	1,000 psig	419	588	770
	650 psig	342	462	625
16-inch, 0.8-mile Pipeline 1-inch Diameter Release @ 45° above horizon	1,000 psig	49	67	89
	650 psig	41	54	72

Table 3Torch Fire Modeling Results

Table 4Flash Fire Modeling Results

	Maximum Allowable Operating Pressure	Horizontal Distance from Unintentional Release (feet)		
Release	Normal Operating Pressure	Upper Flammability Limit (UFL)	Lower Flammability Limit (LFL)	
16-inch, 1.5-mile Pipeline Full Bore Release @ 45° above horizon	1,965 psig	67	140	
	1,450 psig	57	121	
16-inch, 1.5-mile Pipeline 1-inch Diameter Release @ 45° above horizon	1,965 psig	15	32	
	1,450 psig	12	27	
16-inch, 0.8-mile Pipeline Full Bore Release @ 45° above horizon	1,000 psig	39	85	
	650 psig	33	74	
16-inch, 0.8-	1,000 psig	10	22	

	Maximum Allowable Operating Pressure	Horizontal Distance from Unintentional Release (feet)		
Release	Normal Operating Pressure	Upper Flammability Limit (UFL)	Lower Flammability Limit (LFL)	
milePipeline 1-inch Diameter Release @ 45° above horizon	650 psig	8	18	
Well Site 1-inch Diameter Release Vertical	1,965 psig	0	2	
	1,450 psig	0	1	
Well Site Casing Full Bore Rupture Vertical	1,965 psig	2	24	
	1,450 psig	1	17	

Table 4 (Continued)

Mass Release Rate

The commenter states that, "No adjustment of mass release (was made) to reflect the reduction due to the sectionalizing of the compressor station to well head pipeline segment."

The commenter is correct. In response to this comment, the analysis presented in the Final EIR has been revised to reflect the addition of the sectionalizing valve.

It should be noted that only the 8,000 btu/hr-ft² radiant heat flux isopleth was used in the quantitative risk assessment presented in the DEIR Study. The potential impacts beyond the 8,000 btu/hr-ft² radiant heat flux isopleth were excluded from consideration in the DEIR Study. Also, any increased impacts associated with higher heat flux values closer to the release were also excluded from consideration. The revised analysis presented in the Final EIR includes two additional endpoints: 12,000 btu/hr-ft² (100% mortality) and 5,000 btu/hr-ft² (1% mortality).

Duration of Continued Flow

The commenter is correct in stating that the release modeling assumed that a puncture would persist for two hours and a rupture would persist for five minutes before the system would be shut-in by isolation valve closure. However, the worst-case fire and explosion impacts were found to occur within a matter of seconds of initiation of a release. As a result, should the applicant be able to isolate the system in a period of time less than five minutes, the results presented in the DEIR Study would not be affected. To demonstrate this fact, the release

models were re-run using 30 seconds as the duration of normal flow after release initiation. (The DEIR Study conservatively assumed immediate ignition for all releases.) The impact distance to the 1.00 psig over-pressure level was reduced by less than 2%. The impact distances for torch and flash fires were unchanged. (See also discussion of mass release rate above.)

It should also be noted that the time required to isolate the system by closing the isolation valves and shutting down the compressors (if operating) will likely be much longer than 30 seconds. The applicant has stated that the isolation system would be capable of shutting down the system within 30 seconds of <u>leak detection</u>. However, it will take significant time to detect a leak after it has been initiated and to communicate the data through the communications and control system before valve closure can be initiated. The specific details of the applicant's leak detection and control system are not yet available (such data was requested in Section 3.11 of the Review for Completeness). In the absence of such detailed information, the control system was assumed to be typical for the gas industry. Using such equipment, there are several steps to the isolation process after a release has been initiated.

- The local control equipment typically monitors line pressures. Depending on the actual hardware and programming, the poling rate is generally every few seconds, or every minute. In other words, pressure data is normally gathered and transmitted periodically, not continuously.
- The line pressures and other parameters must generally be communicated from the remote sites to the host computer, most often located at the control room. Depending on the means of communication and the actual hardware installed, this could take from several milliseconds (hard-wired fiber optics connection) to a few minutes (satellite or phone line connection).
- The data must then be time stamped and analyzed by the leak detection software housed within the host computer, which would activate a leak alarm. Most leak detection software is capable of generating a gas line rupture alarm within seconds. However, smaller leak rates take much longer to be identified and may fall below the threshold of the leak detection software altogether.
- Depending on whether the initiation of a system shut-down is automatic, or requires confirmation and action by the operator, the time required from the sounding of an alarm to the initiation of valve closure may take up to a few minutes.

- The valve closure signal must then be communicated to the remote sites. Depending on the means of communication and the actual hardware installed, this could take from several milliseconds (hard-wired fiber optics connection) to a few minutes (satellite or phone line connection).
- The valve actuator must then close the valve. This process normally takes from a few seconds to a minute, depending on valve and actuator type.

The five-minute interval between the initiation of a release and system isolation is reasonable. Further, shortening the time to 30 seconds would not have an impact on the results presented in the DEIR Study. It should be noted that if local controls are installed with <u>automatic</u> valve closure, a 30-second valve closure may be achievable for full-bore ruptures, but not smaller releases.

Wind Speed

As noted by the commenter, the EIR assumed a wind speed of 20 miles per hour (mph) for torch fire modeling (refer to Table 6.3-1 of the DEIR Study). This resulted in a horizontal distance from a full-bore release from the 1.5-mile, 16-inch line segment, operating at 1,965 psig of 576 feet to the 8,000 btu/hr-ft² radiant heat flux isopleth (refer to Table 6.3.2-1 of the DEIR Study). Using a wind speed of 0 mph reduces the horizontal distance to the 8,000 btu/hr-ft² radiant heat flux isopleth from 576 feet to 531 feet. Increasing the wind speed would increase the downwind distance to the 8,000 btu/hr-ft² radiant heat flux isopleth. The torch fire values used in the EIR analysis are reasonable and conservative, but not necessarily worst case. And even in the no wind case, the distances to the 8,000 btu/hr-ft² radiant heat flux isopleth are not reduced considerably; in the example cited above, the impact distance was only reduced by 8%.

The EIR assumed a wind speed of 4.5 mph and stability class D for flash fires and explosions (refer to Table 6.3-1 of the DEIR Study). This resulted in a horizontal distance from a full-bore release from the 1.5-mile, 16-inch line segment, operating at 1,965 psig of 67 feet to the upper flammability limit (UFL), and 140 feet to the lower flammability limit (LFL) (refer to Table 6.3.2-2 of the DEIR Study). If the wind speed were reduced to 0 mph, the horizontal distances to the UFL and LFL would increase to 118 feet and 389 feet, respectively.

The U. S. Environmental Protection Agency (EPA) generally considers a wind speed of 1.5 meters per second and F stability to result in the worst-case scenario for consequence modeling from stationary sources. For the 1.5-mile, 16-inch line segment, operating at 1,965 psig, this results in a horizontal distance of 90 feet to

the UFL and 212 feet to the LFL. These distances are 30% to 50% greater than those presented in the DEIR Study.

The analysis presented in the EIR is intended to represent the average risk posed by the Proposed Project, using a reasonable risk assessment approach, without exhaustive analysis. Although some releases could result in significant flash fire impacts extending further from the release than modeled in the EIR, some releases could result in shorter impact distances.

In response to this comment, a sensitivity analysis has been added to the Final EIR in Appendix B-1. This analysis presents the flash fire and torch fire impacts for a variety of wind speeds and atmospheric stabilities.

D1-5 Individual Risk Threshold

In response to this comment, a detailed discussion of the Individual Risk Threshold adopted by some jurisdictions and the definition of Individual Risk has been added to the Final EIR.

Individual risk (IR) is most commonly defined as the frequency that an individual may be expected to sustain a given level of harm from the realization of specific hazards, at a specific location, within a specified time interval. Individual risk is typically measured as the probability of a fatality per year. The risk level is typically determined for the maximally exposed individual; in other words, it assumes that a person is present continuously -24 hours per day, 365 days per year.

As noted in the Final EIR, the individual risk threshold most commonly used, where one has been established, is an annual likelihood of fatality of one in one million (1:1,000,000, 1 x 10-6, or 1.0E-6 fatalities per year). However, the United States federal and California state governments have not adopted individual risk thresholds; the acceptable level of risk is left to local decision makers and project proponents. Figure 1, below, presents the individual risk thresholds for a number of jurisdictions.



Figure 1 Individual Risk Thresholds by Jurisdiction

The upper end of the green areas represent the de minimus risk values for each jurisdiction; IR risk levels within the green range are considered broadly acceptable. Risks within this region are considered so low that no further consideration is warranted. In addition, risks within the green band are so low that it is unlikely that any risk reduction would be cost effective. As a result, a benefit – cost analysis of risk reduction is typically not undertaken.

The lower end of the red areas represent the de mimimus risk values; IR risk levels within the red range are considered unacceptable and the risks are not normally justified on any grounds.

Some jurisdictions have adopted a "grey area," where the risk levels may be negotiated or otherwise considered. The United Kingdom developed the ALARP (as low as reasonably practicable) approach. This approach is depicted by the yellow areas in Figure 2.0-1. Generally, risks within the yellow area may be tolerable only if risk reduction is impractical or if its cost is grossly disproportionate to the risk improvement gained. The basic philosophy is to maximize the expected utility of an investment, but not expose anyone to an excessive increase in risk. The United States government has opposed setting tolerable risk guidelines. A 1997 report of the Presidential Commission on Risk Assessment and Risk Management states, "A strict 'bright line' approach to decision making is vulnerable to misapplications since it cannot explicitly reflect uncertainty about risks, population within, variation in susceptibility, community preferences and values, or economic considerations – all of which are legitimate components of any credible risk management process."

The United States is not alone in its opposition to establishing fixed risk thresholds. The vast majority of nations do not have government established risk tolerance criteria. In these cases, risk tolerance is left to individual owners and other decision makers. The United States has an exemplary safety record. Many believe that this is due to two factors. First, the free market allows the application of capital where it will produce the most risk reduction benefits. And secondly, the tort system provides a mechanism to determine third party liability costs in the event of an injury or fatality. These factors generally result in sound risk reduction decisions which are normally based on a cost-benefit analysis (Marszal 2001).

D1-6 In response to this comment, all raw release modeling data files, spreadsheets documenting the determination of individual and societal risk, and other supporting calculations were provided to the applicant in early May 2009. An additional comment letter has been received (Document No. D2) that addresses the specifics of the DEIR Study.

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Response to Document No. D2

Sacramento Natural Gas Storage, LLC (Jim Fossum and Donald Russell) Dated June 19, 2009

- **D2-1** The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-2** The comment regarding the summary of significant and unavoidable impacts identified in the EIR is noted. Please refer to responses D2-3 through D2-51 for responses regarding analysis of impacts.
- **D2-3** This comment notes that the analysis presented in Appendix B, System Safety and Risk of Upset of the EIR (DEIR Study), is seriously flawed and presents a false and unnecessarily alarming portrayal of the safety risks posed by the project. However, to the contrary, the methodology used in the DEIR Study to conduct the quantitative risk assessment has been used to evaluate the risks posed by numerous similar natural gas projects. The risk analysis for pipelines has been revised in Appendix B-1.
- **D2-4** The commenter notes that the SMUD line would normally be operated at 600 to 700 psig, well below the maximum allowable operating pressure of 1,000 psig, as used in the release modeling presented in Appendix B-1, System Safety and Risk of Upset, of the EIR (DEIR Study). The commenter notes that the segment between the compressor station and the well site would operate between 900 and 1,650 psig, less than the 1,965 psig maximum allowable operating pressure evaluated in the DEIR Study. Based on comments from SNGS, LLC on the EIR, the injection pressure will not exceed 1,650 psig and the reservoir pressure will not operate at pressures greater than 1,804 psig. Section B.2 of the Final EIR has been revised to address this comment.

Although the pipe segments would typically be operated at pressures less than the maximum allowable operating pressure, the applicant could operate the pipe segments at the higher pressures, up to the maximum allowable operating pressure.

The differences in the impact distances for the anticipated operating pressures versus the maximum allowable operating pressures are summarized in the tables presented in response D2-118. As indicated, the differences in impact distances are minor (roughly 15%). Using the anticipated normal operating pressures

instead of the maximum allowable operating pressures would result in insignificant changes to the lengths of line that would pose significant impacts to building and vehicle occupants as presented in Tables 6.5.1-1 and 6.5.2-1 of the DEIR Study. As a result, using the normal operating pressures instead of the maximum allowable operating pressures would result in minor changes to the aggregate and societal risk results presented in the DEIR Study.

In response to this comment, the analysis presented in the Final EIR has been revised to reflect the normal operating pressures within the system, since these conditions will be present the vast majority of the time.

These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **D2-5** Please refer to response D2-4.
- **D2-6** At the time the DEIR Study was prepared, the diameter of the well casings was unknown. A 20-inch outside diameter casing was assumed, based on the casing size from a recent natural gas storage project. However, the applicant has advised that the actual casing diameter would be 8-inches (7 inches inside diameter). The casing release models have been revised to reflect the smaller casing diameter. In addition, on September 11, 2009, the applicant has provided additional information to substantiate a maximum uncontrolled free flow rate from a single well of 60,000,000 SCFD.

In response to this comment and the additional information provided by the applicant, Tables 6.3.1-1, 6.3.2-1, and 6.3.2-2 and Sections 6.5.1 and 6.5.2 of the DEIR Study have been modified in the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

D2-7 The commenter states that, "no adjustment of mass release (was made) to reflect the reduction due to the sectionalizing of the compressor station to wellhead pipeline segment."

The commenter is correct. At the time the Draft EIR was prepared, operational details for this valve had not yet been provided. These details were provided by the applicant on September 11, 2009. This valve would be self-actuating and would be equipped with local pressure sensors. The valve would be designed to

go to the closed position within 10 seconds after sensing an abnormally high or low pressure. This valve would also be capable of being closed remotely, from the control room.

In response to this comment, the analysis presented in the Final EIR has been revised to include the sectionalizing valve, since it is now clear that this valve would be effective in segmenting the pipeline in the event of a pipeline rupture.

It should be noted that only the 8,000 btu/hr-ft² radiant heat flux isopleth was used in the quantitative risk assessment presented in the DEIR Study. The potential impacts beyond the 8,000 btu/hr-ft² radiant heat flux isopleth were excluded from consideration in the DEIR Study. Also, any increased impacts associated with higher heat flux values closer to the release were also excluded from consideration. The Final EIR reflects the addition of two additional endpoints: 12,000 btu/hr-ft² (100% mortality) and 5,000 btu/hr-ft² (1% mortality). These additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

D2-8 The commenter is correct in stating that the release modeling assumed that a puncture would persist for two hours and a rupture would persist for five minutes before the system would be shut-in by isolation valve closure. However, the worst-case fire and explosion impacts were found to occur within a matter of seconds of initiation of a release. As a result, should the applicant be able to isolate the system in a period of time less than five minutes, the results presented in the DEIR Study would not be affected, unless the isolation valves could be closed in significantly less than 30 seconds after the initiation of a release.

To demonstrate this fact, the release models were re-run using 30 seconds as the duration of normal flow after release initiation. (The DEIR Study conservatively assumed immediate ignition for all releases.) The impact distance to the 1.00 psig over-pressure level was reduced less than 2%. The impact distances for torch and flash fires were unchanged. (See also discussion of mass release rate above, response D2-7.)

It should also be noted that the time required to isolate the system by closing the isolation valves and shutting down the compressors (if operating) would likely be much longer than 30 seconds. The applicant has stated that the isolation system would be capable of shutting down the system within 30 seconds of leak detection. However, it would take some period of time to detect a leak after it has started and communicate the data through the communications and control system

before valve closure can be initiated. The specific details of the applicant's leak detection and control system were not available when the DEIR Study was written. (Such data was requested in Section 3.11 of the Review for Completeness.) In the absence of such detailed information, the control system was assumed to be typical for the gas industry. Using such equipment, there are several steps to the isolation process after a release has been initiated:

- The local control equipment typically monitors line pressures. Depending on the actual hardware and programming, the poling rate is generally every few seconds, or every minute. In other words, pressure data is normally gathered and transmitted periodically, not continuously.
- The line pressures and other parameters must generally be communicated from the remote sites to the host computer, most often located at, or near, the control room. Depending on the means of communication and the actual hardware installed, this could take from several milliseconds (hardwired fiber-optics connection) to a few minutes (satellite or phone line connection).
- The data must then be time stamped and analyzed by the leak detection software housed within the host computer, which would activate a leak alarm. Most leak detection software is capable of generating a gas line rupture alarm within seconds. However, smaller leak rates take much longer to identify and may fall below the threshold of the leak detection software altogether.
- Depending on whether the initiation of a system shut-down is automatic, or requires confirmation and action by the operator, the time required from the sounding of an alarm to the initiation of valve closure may take up to a few minutes.
- The valve closure signal must then be communicated to the remote sites. Depending on the means of communication and the actual hardware installed, this could take from several milliseconds (hard-wired fiberoptics connection) to a few minutes (satellite or phone line connection).
- The valve actuator must then close the valve. This process normally takes from a few seconds, to a minute, depending on valve and actuator type.

The five-minute interval between the initiation of a release and system isolation, as used in the EIR, is reasonable. Further, shortening the time to 30 seconds would not have an impact on the findings presented in the DEIR Study. It should be noted that if local controls are installed which enable <u>automatic</u> valve closure,

a 30-second valve closure is achievable for full-bore ruptures, but not smaller releases.

The applicant provided additional details regarding their control system on September 11, 2009. The system is essentially as described above, except for the following:

- The communications link would be via a fiber-optic cable. The polling time would be 20 milliseconds.
- Emergency shut-down (ESD) valves would be installed on each of the injection/withdrawal wells, mid-way between the compressor station and well site, at the well site, and at the compressor station. These valves would be self-actuating and would be equipped with local pressure sensors. The valves are designed to go to the closed position within 10 seconds of sensing an abnormally high or low pressure. The ESD valves can also be closed from the control room.
- The down-hole ESD valves are designed to go to the closed position within three seconds after sensing an abnormally high or low pressure.

The anticipated performance of the leak-detection system is unknown at this time. The applicant has indicated that the system performance will not be known until after startup.

- **D2-9** Please refer to response D2-8. Since the performance of the leak detection system is not known, a worst-case assumption was used in the analysis.
- **D2-10** As noted by the commenter, the EIR assumed a wind speed of 20 miles per hour (mph) for torch fire modeling (refer to Table 6.3-1 of Appendix B-1, System Safety and Risk of Upset, of the EIR (DEIR Study). This resulted in a horizontal distance from a full-bore release from the 1.5 mile, 16-inch line segment, operating at 1,965 psig of 576 feet to the 8,000 btu/hr-ft² radiant heat flux isopleth (refer to Table 6.3.2-1 of the DEIR Study). Using a wind speed of 0 mph reduces the horizontal distance to the 8,000 btu/hr-ft² radiant heat flux isopleth from 576 to 531 feet. Increasing the wind speed would increase the downwind distance to the 8,000 btu/hr-ft² radiant heat flux isopleth. The torch fire values used in the EIR analysis are reasonable and conservative, but not necessarily worst case. And even in the no wind case, the distances to the 8,000 btu/hr-ft² radiant heat flux isopleth are not reduced considerably; in the example cited above, the impact distance was only reduced 8%.

The EIR assumed a wind speed of 4.5 mph and stability class D for flash fires and explosions (refer to Table 6.3-1 of the DEIR Study). This resulted in a horizontal distance from a full-bore release from the 1.5 mile, 16-inch line segment, operating at 1,965 psig of 67 feet to the upper flammability limit (UFL) and 140 feet to the lower flammability limit (LFL) (refer to Table 6.3.2-2 of the DEIR Study). If the wind speed were reduced to 0 mph, the horizontal distances to the UFL and LFL would increase to 118 and 389 feet, respectively. These values are 76% and 178% greater than the values presented in the DEIR Study.

The U.S. EPA generally considers a wind speed of 1.5 meters per second and "F" stability to result in the worst-case scenario for consequence modeling from stationary sources. For the 1.5 mile, 16-inch line segment, operating at 1,965 psig, this results in a horizontal distance of 90 feet to the UFL and 212 feet to the LFL. These distances are 30% to 50% greater than those presented in the DEIR Study.

The analysis presented in the EIR is intended to represent the average risk posed by the Proposed Project, using a reasonable risk assessment approach, without exhaustive analysis. Although some releases could result in significant impacts extending further from the release than modeled in the EIR, some releases could result in shorter impact distances.

In response to this comment, a sensitivity analysis has been added to the Final EIR. This analysis presents the flash fire and torch fire impacts for a variety of wind speeds and atmospheric stabilities. This addition to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

D2-11 The analysis presented in Appendix B-1, System Safety and Risk of Upset, of the EIR (DEIR Study) utilized the horizontal footprint of a "typical" release at an angle of 45 degrees above the horizon to model explosion and fire impacts. As depicted in the figure below, for this release angle, the combustible portion of the vapor cloud would be well overhead, except for very near the release.



However, a release could occur anywhere around the pipe circumference. In fact, it could be directed below the horizon, in which case it would be deflected by the surrounding soil, pavement, and other surface features. It is impossible to predict, with any accuracy, the velocity, trajectory, and mixing of the gas as it escapes the ground surface. Since the pipeline is buried, the gas would almost certainly be deflected as it escapes the ground surface. For full-bore ruptures, a crater would likely be created. The actual size and shape of the crater would depend on a number of factors (e.g., release rate, pressure, soil type, depth of cover). The portion of the vapor cloud located overhead, above surrounding buildings and other surface structures, would not have sufficient confinement to cause an explosion; as noted by the applicant's consultant in comment D2-178, the peak

over-pressure for this case would be 0.38 psig, which would extend a distance of 442 feet (medium fuel reactivity, low obstacle density). In response to this comment, the Final EIR incorporates the results of five different release angles in the individual risk assessment: 15 degrees downwind, 45 degrees downwind, vertical, 45 degrees upwind, and 15 degrees upwind. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

It should also be noted that the explosion modeling assumed that the fuel stream was 100% methane. However, as pointed out by the applicant in comment D2-176, the natural gas is not 100% methane. As a result, the fuel reactivity should theoretically be defined as "medium" in the Baker-Stehlow model. The Final EIR uses medium fuel reactivity and low obstacle density in the flash fire and explosion modeling. The low obstacle density is appropriate because the five release angles result in an unconfined, overhead vapor cloud, except for very near the release (low obstacle density). Where the vapor cloud is located at ground level, near the release, the surroundings are relatively open along the entire pipeline alignment (low obstacle density).

- **D2-12** Please refer to response D2-7.
- **D2-13** The responses to the individual comments of Mr. Weatherwax and Mr. Cornwell are provided in responses D2-112 through D2-165 and D2-166 though D2-195, respectively.
- **D2-14** In response to this comment, the Final EIR includes a detailed discussion of the Individual Risk Thresholds adopted by some jurisdictions and the definition of individual risk. An individual risk assessment has also been added to avoid the confusion created in the EIR, which incorrectly compared the aggregate risk (risk posed by all of the project components over their entire length) to the 1:1,000,000 individual risk threshold discussed below.

Individual risk is most commonly defined as the frequency that an individual may be expected to sustain a given level of harm from the realization of specific hazards, at a specific location, within a specified time interval. Individual risk is typically measured as the probability of a fatality per year.

As noted in the Final EIR, the individual risk threshold most commonly used, where one has been established, is an annual likelihood of fatality of one in one million $(1:1,000,000, 1 \times 10-6, \text{ or } 1.0\text{E-6} \text{ fatalities per year})$. However, the United

States federal and California state governments have not adopted individual risk thresholds; the acceptable level of risk is left to local decision makers and project proponents. Figure 1, below, presents the individual risk thresholds for a number of jurisdictions.



Figure 1 Individual Risk Thresholds by Jurisdiction

The upper end of the green areas represent the de minimus risk values for each jurisdiction; individual risk (IR) levels within the green range are considered broadly acceptable. Risks within this region are considered so low that no further consideration is warranted. In addition, risks within the green band are so low that it is unlikely that any risk reduction would be cost effective. As a result, a benefit to cost analysis of risk reduction is typically not undertaken.

The lower end of the red areas represent the de minimus risk values; individual risk levels within the red range are considered unacceptable and the risks are not normally justified on any grounds.

Some jurisdictions have adopted a "grey area," where the risk levels may be negotiated or otherwise considered. The United Kingdom developed the ALARP

(as low as reasonably practicable) approach. This approach is depicted by the yellow areas in Figure 1. Generally, risks within the yellow area may be tolerable only if risk reduction is impractical or if its cost is grossly disproportionate to the risk improvement gained. The basic philosophy is to maximize the expected utility of an investment, but not expose anyone to an excessive increase in risk.

The United States government has opposed setting tolerable risk guidelines. A 1997 report of the Presidential Commission on Risk Assessment and Risk Management states:

A strict "bright line" approach to decision making is vulnerable to misapplications since it cannot explicitly reflect uncertainty about risks, population within, variation in susceptibility, community preferences and values, or economic considerations – all of which are legitimate components of any credible risk management process.

The United States is not alone in its opposition to establishing fixed risk thresholds. The vast majority of nations do not have government established risk tolerance criteria. In these cases, risk tolerance is left to individual owners and other decision makers. The United States has an exemplary safety record. Many believe that this is due to two factors. First, the free market allows the application of capital where it will produce the most risk-reduction benefits. And secondly, the tort system provides a mechanism to determine third-party liability costs in the event of an injury or fatality. These factors generally result in sound risk reduction decisions, which are normally based on a cost-benefit analysis (Marszal 2001).

- **D2-15** In response to this comment, the text of Appendix B-1, System Safety and Risk of Upset included in the Final EIR, has been revised to avoid any confusion with the risk of serious injuries. The results of the qualitative analysis, presented in Section 5.2 of the DEIR Study include fatalities only and do not require clarification. The text of the quantitative analysis, presented in Section 6.0 of the DEIR Study, has been clarified in the Final EIR. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-16** During periods of non-operation, when the pipelines are neither injecting nor withdrawing natural gas to/from the reservoir, they would be pressurized, but would be isolated from the SMUD line and the storage reservoir. The results for the 1-inch diameter releases were the same, whether the line segments were operational or not, since the release rate was such a small portion of the gas

volume stored within the pipe. For the full-bore ruptures, the horizontal distances to potential hazardous consequences (1.00 psig overpressure level) were less than 2% less than those presented in Table 6.3.1-1 of Appendix B-1, System Safety and Risk of Upset of the DEIR (DEIR Study) for periods when the pipe is not operational. The results were similar for flash fires. For torch fires, the mass flow rate at 30 seconds after the initiation of a release was reduced to 373 pounds per second. This results in a reduction in the horizontal distance to the 8,000 btu/hr-ft² radiant heat flux isopleth from 576 feet (16-inch pipe segment, operated at 1,965 psig at 1 second after release initiation) to 256 feet (30 seconds after release initiation).

During periods of non-operation, the length of line posing potentially serious impacts to building occupants from torch fires would be reduced. The overall risk of fatality from the pipeline segments would be reduced approximately 40%. In other words, during periods of non-operation (gas not flowing in the pipelines), the public risk posed by the pipeline would be roughly 60% of the pipeline risk when the project was in operation (gas flowing in the pipelines). But since the duration of operation is unknown, the risks presented in the EIR conservatively assumed that the project was in operation 100% of the time.

In response to this comment and subsequent responses to data requests from the applicant, the annual frequency of fatality presented in the Final EIR has been revised to reflect the pipeline being operational 50% of the time. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **D2-17** The Final EIR has been revised to reflect these comments.
- **D2-18** Changes have been made to the societal risk analysis presented in Appendix B-1, System Safety and Risk of Upset, of the Final EIR to reflect the change in the casing size from 20 inches to 7 inches and the elimination of the 12-inch line segment. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-19** The comment is noted.
- **D2-20** Please refer to response D2-17 for a general discussion of the reasonableness of the result proposed by the commenter.

Please refer to responses D2-112 through D2-164 for detailed responses to the adjustments proposed by the commenter.

- **D2-21** It is understood that the potential for migration of gas into the aquifers or to the surfaces is low, but not negligible. The analysis provided by the applicant, although comprehensive, is based on little actual data on the reservoir, but more on modeling and assumptions. There is the potential for discontinuities within the formations, including faulting that could serve as pathways for migration of gas.
- **D2-22** Migration of gas to the surface would have a potential for substantial impact since the high-population levels could be impacted due to the number of structures and other developments in the area.
- **D2-23** The EIR does acknowledge that remediation would be possible; however, it would involve the construction of treatment facilities and would require the potential reduction in the use of the aquifer during the remediation process.
- **D2-24** Comment noted. The EIR does consider the impact significant and unavoidable since the aquifer is used for a potable water supply for a large population.
- **D2-25** The project description in Section B of the Final EIR has been revised to indicate that the injection pressure of the project will not exceed 1,650 psig. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-26** Comment noted.
- **D2-27** Section D.6 of the Final EIR has been modified to state that leakage from the cap rock may occur on a geologic time scale. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-28** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-29** Comment noted. It should be emphasized that this conclusion by Ryder Scott is based on modeling of the reservoir based on limited information.

- **D2-30** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-31** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-32** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-33** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-34** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-35** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-36** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-37** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-38** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-39** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-40** Comment noted. It is understood that the gas migration issues at El Segundo, Castaic Hills, and Montebello are unique due to specific on-site conditions.

However, there have been a number of incidents of gas migration at various fields due to various reasons. A concern with the Proposed Project is that it is over a highly populated area.

- **D2-41** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-42** Comment noted. It is acknowledged in the EIR that the potential for gas migration is low, but not negligible, and the consequence of such an occurrence is high, given the urban uses and the use of the aquifer that is used for major water sources.
- **D2-43** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-44** The three APMs listed by the commenter are noted, but the measures have been retained as mitigation in the Final EIR.
- **D2-45** Based on our analysis, the lot line of the closest sensitive receptor is approximately 125 feet. Although the drilling rigs may be approximately 300 feet from these receptors, it is assumed that activities will occur throughout the site, not at the drill rig. This will include equipment use, pipe, and other storage and construction activities.
- **D2-46** It is not clear from the analysis, the comparability of the equipment and activities to the Proposed Project. For instance, it appears that the hole drilled was smaller in diameter to the Proposed Project. It is also not clear if other equipment was measured at the time and such factors as impact noise were considered.
- **D2-47** Please refer to response D2-46. The analysis provides a realistic analysis and anticipates the 24-hour drilling activities.
- **D2-48** The attenuation of noise at 6 dBA per doubling distance is a standard formula and is applicable to the Proposed Project.
- **D2-49** Please refer to responses D2-45 and D2-46.
- **D2-50** The sound attenuation of 5 to 10 dBA is a general rule of thumb not knowing the design of the noise barrier. Furthermore, the proposed barrier would not extend to

the top of the approximately 150-foot derrick and would not dampen the noise from that source.

- **D2-51** Please see responses D2-45, D2-46, and D2-50. On a conservative basis, well construction will be considered a significant adverse impact.
- **D2-52** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-53** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-54** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-55** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-56** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-57** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-58** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-59** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-60** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **D2-61** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-62** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-63** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-64** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-65** In response to this comment, Mitigation Measures B-3a and B-6 have been modified in the Final EIR. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-66** The Proposed Project would not replace combustion of liquid or solid fuels by SMUD or other users. Accordingly, the Proposed Project would not necessarily support the goals of AB 32 in this case.
- **D2-67** The comment is noted. The net reduction in greenhouse gas emissions relative to the use of compressors driven by gas-fired engines was analyzed in the EIR. However, the analysis in the EIR also considers the use of electricity to power electric-motor-driven compressors, which also results in greenhouse gas emissions. We do not agree that the use of electric-powered equipment alone would reduce the greenhouse gas emissions to a less-than-significant impact.
- **D2-68** Responses to particular issues described in this introduction to comments that follow are found in responses D2-69 through D2-97.
- **D2-69** The 379 acres of the Florin Gas Field represents the information provided to the EIR preparers during the data request phase. This size of the field, and whether or not the full field is used for storage, represents the estimate of the original field. It should also be noted that the southern portion of the field was removed from the modeling because it was assumed that this area has limited connectivity with the rest of the field. This is an assumption that is not based on any field data since no drilling has been conducted in that area.

- **D2-70** The modeling efforts of Ryder Scott are acknowledged.
- **D2-71** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-72** The project description in Section B of the Final EIR has been modified to acknowledge the Ryder Scott modeling analysis and to indicate that the results of the modeling show an area of approximately 287 acres. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- D2-73 Figure B-2 has been modified in the Final EIR to also include the delineation of the field prepared by Ryder Scott. The DOGGR field delineation was retained, but additional language was provided to define how it was developed by DOGGR. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-74** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-75** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-76** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-77** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-78** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **D2-79** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-80** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-81** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-82** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-83** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-84** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-85** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-86** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-87** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-88** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **D2-89** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-90** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-91** In response to this comment, the discussion of pressure in Section B, Project Description, has been modified in the Final EIR to reflect the changes in pressure. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-92** In response to this comment, Section B, Project Description, has been modified in the Final EIR. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-93** In response to this comment, Section B, Project Description, has been modified in the Final EIR. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-94** In response to this comment, Section B, Project Description, has been modified in the Final EIR. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-95** In response to this comment, Section B, Project Description, and Table B-5 have been modified in the Final EIR to reflect that the project equipment will meet a Class IV seismic standard. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-96** In responses to this comment, APM 10 has been modified in the Final EIR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-97** In response to this comment, Section B, Project Description, has been updated in the Final EIR to reflect this information. These changes to the EIR do not raise

important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **D2-98** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-99** The alternative analysis did not consider the economic feasibility of the alternatives in the evaluation. Although the alternatives may not be profitable using the methodology outlined in the comment, it may be feasible using other methods of development.
- **D2-100** For the reasons cited above, and because significant unavoidable impacts remain, the environmentally preferable alternative will remain unchanged.
- **D2-101** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-102** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-103** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-104** This modification to the Executive Summary has been made in the Final EIR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-105** The use of paying additional money to SMUD for use of renewable energy for up to 50% of electrical used is noted and is a mitigation measure. Since it was already identified as a mitigation measure, its use as an APM is not appropriate.
- **D2-106** The data in Appendix A of the EIR to which the comment refers are the emissions from motor vehicles driven by the compressor station operators. These are not the total operational emissions associated with the Proposed Project. As noted in response B5-114, a table showing the Proposed Project's operational emissions was inadvertently left out of the Draft EIR. That table showed the sulfur oxides

 (SO_x) emissions as 0.10 pounds per day, based on the estimated emissions from Kirby Hills Natural Gas Storage Facility in Solano County as stated in the Proponent's Environmental Assessment. In addition, daily emissions associated with testing and maintenance of a 100-kilowatt emergency generator have been calculated and are shown in the Final EIR. Even with these emissions, the Proposed Project's estimated emissions would remain at 0.10 pounds per day. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **D2-107** In response to this comment, this information has been added to Section D.11 of the Final EIR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-108** A change has been made to the Final EIR in response to this comment to make the change to approximately 16 acres. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-109** In response to this comment, the change in table number has been made to the Final EIR. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-110** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-111** Appendices list noted. The list does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-112** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-113** Please refer to response D2-17.

- **D2-114** There were three evaluations presented in Appendix B-1, System Safety and Risk of Upset, of the EIR: a qualitative analysis of aggregate risk, a quantitative analysis of aggregate risk, and a quantitative analysis of societal risk.
- **D2-115** Please refer to responses D2-116 through D2-158. These responses address the individual points raised in this introductory statement.
- **D2-116** The 12-inch-diameter, 0.4-mile pipe segment was removed from the project after the draft Appendix B-1, System Safety and Risk of Upset, of the EIR (DEIR Study) had been prepared. Tables 6.3-1, 6.3.1-1, 6.3.2-1, 6.3.2-2, 6.5.1-1, 6.6.3-1, and 6.6.3-2 of the DEIR Study have been revised for the Final EIR and Table 6.5.2-1 has been deleted. The text summarizing the results has also been modified to eliminate the impacts associated with the 12-inch line segment and the reduction in the well casing diameter.

These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088(b) of the CEQA guidelines.

- **D2-117** Please refer to response D2-6.
- **D2-118** The commenter notes that the SMUD line would normally be operated at 700 psig, well below the maximum allowable operating pressure of 1,000 psig as used in the release modeling presented in Appendix B-1, System Safety and Risk of Upset, of the EIR (DEIR Study). The commenter notes that the segment between the compressor station and the well site would operate at 1650 psig, less than the 1,965 psig maximum allowable operating pressure evaluated in the DEIR Study. It should be noted that this statement conflicts with Section B.2.1 of the EIR, which references a reservoir operating pressure of 1,804 psig (Ryder Scott Company 2008). The estimated current pressure of the reservoir is between 1,200 to 1,300 psig (SNGS, LLC 2008). It also conflicts with comment D1-4, which provides normal operation pressures of 600 to 700 psig and 900 to 1,650 psig for the low and high pressure line segments, respectively.

Although the pipe segments would typically be operated at pressures less than the maximum allowable operating pressure, the applicant could operate the pipe segments at the higher pressures, up to the maximum allowable operating pressure.

Using the anticipated normal operating pressures instead of the maximum allowable operating pressures would result in insignificant changes to the lengths

of line that would pose significant impacts to building and vehicle occupants as presented in Tables 6.5.1-1 and 6.5.2-1 of the DEIR Study, which addresses aggregate risk. As a result, using the normal operating pressures instead of the maximum allowable operating pressures would result in minor changes to the aggregate and societal risk findings presented in the DEIR Study.

These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088(b) of the CEQA guidelines.

- **D2-119** Please refer to response D2-118.
- **D2-120** Please refer to response D2-16.
- **D2-121** The commenter is correct that the Draft EIR analysis did not consider the additional sectionalizing valve in the compressor station to wellhead pipeline segment. At the time the Draft EIR was prepared, operational details for this valve had not yet been provided. These details were provided by the applicant on September 11, 2009. This valve would be self-actuating and would be equipped with local pressure sensors. The valve would be designed to go to the closed position within 10 seconds of sensing an abnormally high or low pressure. This valve would also be capable of being closed remotely from the control room.

In response to this comment, the analysis presented in the Final EIR has been revised to include this valve, since it is now clear that this valve would be effective in segmenting the pipeline in the event of a pipeline rupture.

These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088(b) of the CEQA guidelines.

- **D2-122** Please refer to responses D2-8 and D2-9.
- **D2-123** Appendix B-1, System Safety and Risk of Upset of the EIR (DEIR Study), considers the APMs that would be incorporated into the project. As discussed in Section 4.6.1 of the DEIR Study, the baseline frequency of reportable third-party damage incidents was reduced by 33%, from 0.064 to 0.043 incidents per 1,000 mile-years to account for the increased depth of cover and additional wall thickness proposed by the applicant.
- **D2-124** Please refer to response D2-183.
- **D2-125** Please refer to response D2-11.
- **D2-126** Please refer to response D2-183.
- **D2-127** Please refer to responses D2-129 through D2-158 for a discussion of the individual "adjustments" to the EIR results suggested by the commenter.

Please refer to comment D2-17 for a discussion of the reasonableness of the result proposed by the commenter.

- **D2-128** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-129** In response to this and other comments, the individual risk results stated in Section 6.5.3 of the Final EIR have been modified. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-130** Please refer to response D2-6.
- **D2-131** Please refer to response D2-11.
- **D2-132** Please refer to response D2-11.

In response to this and other comments regarding the casing size, and due to additional information provided by the applicant on September 11, 2009, regarding the maximum possible free-flow rate from a well, Tables 6.3.1-1, 6.3.2-1, and 6.3.2-2 and Sections 6.5.1 and 6.5.2 of the DEIR Study, have been modified in the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **D2-133** Please refer to responses D2-118 and D2-119.
- **D2-134** Please refer to response D2-11.
- **D2-135** Please refer to responses D2-6 and D2-11 for a discussion of the mass flow rate and degree of confinement.

The specific details of the applicant's piping and control system, which, according to the commenter, "provide multiple redundant shutoff valves that act to shutdown the flow in a few seconds," had not been provided at the time the Draft EIR was prepared. (Such data was requested in Section 3.11 of the Review for Completeness.) These data were furnished on September 11, 2009. As a result, at the time the Draft EIR was prepared, it was not possible to independently verify the adequacy and reliability of this equipment to accomplish the stated objectives.

In response to this and other comments regarding the casing size and due to the additional information provided by the applicant, Tables 6.3.1-1, 6.3.2-1, and 6.3.2-2 and Sections 6.5.1 and 6.5.2 of the DEIR Study, have been modified in the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **D2-136** Please refer to response D2-6.
- **D2-137** Please refer to responses D2-118 and D2-119 regarding the differences in release modeling at the anticipated operating pressures stated by the commenter and at the maximum allowable operating pressures.

The commenter used the results from the lower operating pressures, "scaling these results for impacts on the EDM IR assessment results in a reduction for Power Inn Road, Elder Creek Road and Fruitridge Road...." However, this "scaling" of the results is neither appropriate, nor correct.

- **D2-138** Please refer to response D2-183.
- **D2-139** Please refer to response D2-123 regarding the reduction in the frequency of thirdparty damage incidents due to the increased burial depth. Please refer to response D2-118 regarding the impacts associated with normal operating versus maximum allowable operating pressures.
- **D2-140** The commenter appears to have made an error in measuring the distances of line that could pose significant impacts. The values suggested by the commenter were checked using drawing number P1101, revision C, which is presented at a scale of 1 inch = 80 feet. The length of line within 511 feet (rupture flame length at 1,450 psig normal operating pressure) of the centerline of Power Inn Road is 2,132 feet. The length of line within 595 feet (rupture flame length at 1,965 psig maximum allowable operating pressure) of the centerline of Power Inn Road is 2,216 feet.

The distance cited in Table 6.5.2-1 of Appendix B-1, System Safety and Risk of Upset of the EIR (DEIR Study), has been revised in the Final EIR to reflect several changes in the analysis. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

Drawing number P1101, revision C, depicts the pipeline crossing beneath two existing structures, which is incorrect. As a result, drawing number P1100, revision 1, which is presented at a scale of 1 inch = 300 feet was used in an attempt to verify the line lengths that may pose significant impacts from a 1-inch diameter release along Power Inn Road. At this drawing scale, it was impossible to evaluate the comment regarding the line length posing potentially significant impacts.

- **D2-141** The commenter has not provided any justification for his suggestion that deep burial would reduce "the likelihood of lethality by a factor of ten." In the event of a leak, the gas would migrate to the surface. If the release were large enough, a large crater would be created, subject to local soil conditions. If an ignition source were present, a fire could result. The commenter has not provided any evidence or compelling arguments to substantiate the claim that deep burial would reduce the likelihood of a fire following a release. To the contrary, arguments could be made that the deep burial could increase the dispersion of gas, increasing the impact distances. The suggested reduction in risk along Elder Creek Road is not supported. Please refer to response D2-123.
- **D2-142** The commenter appears to have made an error in measuring the distances of line that could pose significant impacts. The values suggested by the commenter were checked using drawing number P1108, revision C, which is presented at a scale of 1 inch = 80 feet. The length of line within 342 feet (rupture flame length at 650 psig normal operating pressure) of the centerline of Fruitridge Road is 328 feet. The length of line within 423 feet (flame length at 1,000 psig maximum allowable operating pressure) of the centerline of Fruitridge Road is 410 feet.

The distance cited in Table 6.5.2-1 of Appendix B-1, System Safety and Risk of Upset of the EIR (DEIR Study), has been revised in the Final EIR to reflect several changes in the analysis. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

The 1-inch-diameter release flame length is 26 feet at 650 psig normal operating pressure and 32 feet at 1,000 psig maximum allowable operating pressure. The distance cited in Table 6.5.2-1 of Appendix B-1, System Safety and Risk of Upset of the EIR (DEIR Study), has been revised. This correction results in a reduction in the risk to vehicle occupants from this release scenario. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **D2-143** The changes discussed in responses D2-140 and D2-142 have been incorporated into the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-144** Please refer to responses D2-118 and D2-119 regarding the differences in release modeling results at the anticipated operating pressures stated by the commenter versus those at the maximum allowable operating pressures.
- **D2-145** Please refer to response D2-183.
- **D2-146** Please refer to response D2-147
- **D2-147** In the analysis presented in Appendix B-1, System Safety and Risk of Upset of the EIR (DEIR Study), the isopleths from the line segment between the SMUD line and the compressor station and the line segment between the compressor station and the well site were not "lumped together," as stated by the commenter. The length of the line segment between the SMUD line and the compressor station within 419 feet (distance to the 8,000 btu/hr-ft² radiant heat flux isopleth) of a commercial building was estimated to be 3,450 feet in the DEIR Study. The length of the line segment between the compressor station and the well site within 576 feet (distance to the 8,000 btu/hr-ft² radiant heat flux isopleth) of a commercial building was estimated to be 6,865 feet in the DEIR Study.

It should be noted that only the 8,000 btu/hr-ft² radiant heat flux isopleth was used in the quantitative risk assessment presented in the DEIR Study. The potential impacts beyond the 8,000 btu/hr-ft² radiant heat flux isopleth were excluded from consideration in the DEIR Study. Also, increased impacts to those closer to the line with higher radiant heat flux were not considered. The revised analysis presented in the Final EIR also includes torch fire end-points of 12,000 btu/hr-ft² (100% mortality) and 5,000 btu/hr-ft² (1% mortality). Please also refer to responses D2-4, D2-7, D2-8, D2-12, D2-118, and D2-183.

D2-148 Please refer to responses D2-118 and D2-119 regarding the differences in release modeling results at the anticipated operating pressures stated by the commenter versus those at the maximum allowable operating pressures.

Please refer to the response D2-183 regarding the mass flow rate used in the torch fire modeling.

- **D2-149** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-150** Please refer to responses D2-4, D2-7, D2-8, D2-118, D2-121, D2-123, and D2-183.

It should also be noted that only the 8,000 btu/hr-ft² radiant heat flux isopleth was used in the quantitative risk assessment presented in the DEIR Study. The potential impacts beyond the 8,000 btu/hr-ft² radiant heat flux isopleth were excluded from consideration in the DEIR Study. Also, increased impacts to those closer to the line with higher radiant heat flux were not considered. The revised analysis presented in the Final EIR also includes torch fire end-points of 12,000 btu/hr-ft² (100% mortality) and 5,000 btu/hr-ft² (1% mortality).

D2-151 Please refer to responses D2-118 and D2-119 regarding the differences in release modeling results at the anticipated operating pressures stated by the commenter versus those at the maximum allowable operating pressures.

Please refer to response D2-183 regarding the mass flow rate used in the torch fire modeling.

Please refer to responses D2-123 and D2-141 regarding deep burial impacts on fire risks.

- **D2-152** The commenter does not provide justification for assigning, "the commercial sector higher pressure pipeline risk the value of 9.75x10⁻⁷." This comment is vague and unclear. It does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-153** The length of the line segment between the compressor station and the well site within 576 feet (distance to the 8,000 btu/hr-ft² radiant heat flux isopleth) of a

commercial building was estimated to be 6,865 feet in the DEIR Study. A portion of this line segment has exposure on both sides of the pipeline, while a portion has an exposure on only one side of the pipeline. The commenter is correct; Appendix B-1, System Safety and Risk of Upset of the EIR (DEIR Study), incorrectly assumed that the exposure was on both sides of the line. This has been corrected in the Final EIR.

Please refer to responses D2-118 and D2-119 regarding the differences in release modeling results at the anticipated operating pressures stated by the commenter versus those at the maximum allowable operating pressures.

The commenter suggests that the portion of line with very deep burial (assumed to be the segment to be installed by HDD techniques) should be removed from the analysis. However, the commenter has not provided any justification. In the event of a leak, the gas would migrate to the surface. If the release were large enough, a large crater would be created, subject to local soil conditions. If an ignition source were present, a fire could result. The commenter has not provided any evidence or compelling arguments to substantiate the claim that deep burial would reduce the likelihood of a fire following a release. To the contrary, arguments could be made that the deep burial could increase the dispersion of gas, increasing the impact distances. The suggested reduction in risk is not supported.

It should be noted that only the 8,000 btu/hr-ft² radiant heat flux isopleth was used in the quantitative risk assessment presented in the DEIR Study. The potential impacts beyond the 8,000 btu/hr-ft² radiant heat flux isopleth were excluded from consideration in the DEIR Study. Also, increased impacts to those closer to the line with higher radiant heat flux were not considered. The revised analysis presented in the Final EIR also includes torch fire end-points of 12,000 btu/hr-ft² (100% mortality) and 5,000 btu/hr-ft² (1% mortality).

These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines

D2-154 Please refer to response D2-121 regarding consideration of the sectionalizing valve.

Please refer to response D2-123 regarding the consideration given to the additional wall thickness and deeper burial depth.

D2-155 Please refer to responses D2-157 and D2-158.

- **D2-156** Please refer to responses D2-157 and D2-158.
- **D2-157** There is no evidence to support the reduction in third-party risk proposed by the commenter, essentially taking a 30% reduction due to thicker pipe wall and an additional 25% reduction for increased depth of cover; the commenter proposed a 52.5% reduction in the frequency of third-party caused incidents. In the absence of such supporting data, as discussed in Section 4.6.1 of Appendix B-1, System Safety and Risk of Upset of the EIR, it is doubtful that the results would be additive; as a result, a 33% reduction in the anticipated frequency of third-party caused incidents was used in the Draft EIR. For example, deeper burial depths decrease the likelihood of the line being hit by third parties excavating near the line, since the line would be placed below the depth of many excavations. However, due to the deeper burial, larger equipment would likely be used to excavate those excavations at depths that could impact the pipe. This larger equipment would be more prone to damage the line.
- **D2-158** Pitting corrosion, one of the most frequent causes of external corrosion-caused incidents on modern pipelines, can occur at very high rates. As a result, increased wall thickness is normally not considered effective mitigation for external corrosion. If the pipe has adequate cathodic protection at the pit location, pitting corrosion rates are normally on the order of 0.005 inch per year. However, if the cathodic protection is shielded or otherwise ineffective at the pit location, the pitting corrosion rates can be on the order of 0.300 inch per year. For the proposed 0.375- and 0.656-inch wall thickness pipe, a through-wall defect could occur within about 1.3 and 2.2 years, respectively. As a result, even with the proposed thicker pipe wall thickness, a through-wall defect could occur between internal inspection intervals.
- **D2-159** Please refer to responses D2-3 and D2-17.
- **D2-160** Please refer to response D2-121.
- **D2-161** Please refer to response D2-16.
- **D2-162** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-163** This commenter notes that the analysis presented in Appendix B-1, System Safety and Risk of Upset of the EIR (DEIR Study) is "excessively crude and overstates risks." The system safety analysis has been revised in the Final EIR.

- **D2-164** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-165** Mr. Weaterwax's resume is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-166** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-167** Please refer to responses D2-172 through D2-194.
- **D2-168** In response to this comment, the text of Section 3.1 of Appendix B-1, System Safety and Risk of Upset of the EIR, has been modified in the Final EIR. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-169** In response to this comment, the citation noted in Section 3.1 of Appendix B-1, System Safety and Risk of Upset of the EIR, has been moved in the Final EIR to provide clarity. These changes and additions to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-170** Please refer to response D2-11.
- **D2-171** In response to this comment, the text of Section 6.3 of Appendix B-1, System Safety and Risk of Upset of the EIR, has been modified in the Final EIR. These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-172** Please refer to response D2-11.
- **D2-173** Please refer to response D2-10.
- **D2-174** Please refer to response D2-10.
- **D2-175** Please refer to response D2-11.
- **D2-176** Please refer to response D2-11.

- **D2-177** Please refer to response D2-11.
- **D2-178** Please refer to response D2-11.
- **D2-179** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-180** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-181** Please refer to response D2-11.
- **D2-182** The example cited by the commenter is in a "relatively open (area) with little confinement potential for a gas cloud explosion." As a result, we would expect the overpressure level to be 0.38 psig, as discussed in response D2-11. This overpressure level would not cause fatalities.
- **D2-183** In response to this comment, the torch fire release modeling presented in Appendix B-1 to the Final EIR has been revised. The revised analysis uses the average mass release rate over the first 60 seconds after release initiation. This change to the EIR does not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.
- **D2-184** Please refer to response D2-183.
- **D2-185** Please refer to response D2-183.
- **D2-186** Please refer to response D2-183.
- **D2-187** Please refer to response D2-183.
- **D2-188** Please refer to response D2-183.
- **D2-189** Please refer to responses D2-6 and D2-183.
- **D2-190** The risk of an indoor explosion is extremely low, essentially negligible, but not zero. As used in Appendix B-1, System Safety and Risk of Upset of the EIR, the annual risk of fatality due to an indoor explosion was 4.23x10⁻¹⁰ (1:2.36 billion). Please refer to response D2-11 regarding outdoor explosions.

- **D2-191** Please refer to response D2-183.
- **D2-192** Please refer to response D2-11.
- **D2-193** Please refer to responses D2-11 and D2-190.
- **D2-194** Please refer to responses D2-166 though D2-193.
- **D2-195** Mr. Cornwell's resume is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-196** This information is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-197** The comment is noted. It should be noted that the information provided in the analysis is based on modeling and assumptions and is not conclusive in its analysis.
- **D2-198** The information is noted. The assumption of cap rock strength is based on modeling and is not conclusive in its analysis.
- **D2-199** This analysis is based on modeling and theoretical analysis of the cap rock, it would not necessarily account for areas of weakness or other anomalies.
- **D2-200** Although no faulting has been confirmed, there are anomalies in the geotechnical data that could indicate faulting or other anomalies. It is not clear that cycling of gas in the storage scenario would not allow leakage through the cap rock.
- **D2-201** The comment is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-202** The comment is noted. It should be noted that the maximum pressure determination is from modeling and would be exerted at at least three locations.
- **D2-203** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-204** Comment noted. In response to this comment, additional detail has been added to Mitigation Measure HAZ-2a*i* (laboratory analysis mitigation) in the Final EIR.

These changes to the EIR do not raise important new issues about significant effects on the environment. Such changes are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines.

- **D2-205** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-206** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-207** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-208** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-209** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-210** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-211** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-212** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-213** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **D2-214** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-215** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-216** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-217** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-218** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-219** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-220** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-221** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-222** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-223** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **D2-224** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-225** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-226** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-227** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-228** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-229** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-230** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-231** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-232** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-233** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **D2-234** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-235** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-236** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-237** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-238** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-239** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-240** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-241** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-242** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-243** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **D2-244** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-245** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-246** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-247** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-248** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-249** Comment noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-250** Dr. Oram's resume is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-251** Mr. Winsor's resume is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-252** This article, *Environmental Hazards Posed by the Los Angeles Basin Urban Oilfields: An Historical Perspective of Lessons Learned*, is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-253** This report, An Appraisal of Underground Gas Storage Technologies and Incidents, for the Development of Risk Assessment Methodology, is noted and will be included in the project record for the CPUC to consider during project deliberation.

- **D2-254** This report, *Urban Operations: Drilling and Completing a Gas Well on a Downtown University campus*, is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-255** This acoustical report is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-256** This report, *Noise Level Measurements Sound Fighter Barrier Wall BAE Systems, Inc. Facility York, Pennsylvania*, is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-257** The information in this testimony by Jim Fossum on behalf on SNGS, LLC is noted. The testimony does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required
- **D2-258** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-259** This information from Resolution No. 2007-623 is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-260** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-261** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-262** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-263** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-264** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-265** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-266** This proposed lease is noted and will be included in the project record for the CPUC to consider during project deliberation.

- **D2-267** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-268** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-269** This testimony of Donald B Russell on behalf of SNGS, LLC is noted. The testimony does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-270** Mr. Le Fevre's resume is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-271** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-272** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-273** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-274** This information is noted and will be included in the project record for the CPUC to consider during project deliberation.
- **D2-275** This testimony of Arthur Gimmy on behalf on SNGS, LLC is noted. The testimony does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-276** Mr. Gimmy's resume is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-277** This information is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-278** This testimony of James Robert Fountain, Jr, PhD, on behalf of SNGS, LLC is noted. The testimony does not raise specific issues related to the adequacy of the

environmental analysis in the EIR; therefore, no additional response is provided or required.

- **D2-279** This information is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-280** Dr. Fountain's resume is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-281** This testimony of Shawna Ackerman on behalf of SNGS, LLC is noted. The testimony does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required
- **D2-282** Ms. Ackerman's resume is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-283** This information is noted for the record. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-284** This testimony of Barry Brunelle on behalf of SNGS, LLC is noted. The testimony does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required
- **D2-285** Mr. Brunelle's resume is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-286** This testimony of Bruce Palmer on behalf of SNGS, LLC is noted. The testimony does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-287** Mr. Palmer's resume is noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-288** This information is noted for the record.

- **D2-289** This information is noted for the record.
- **D2-290** This information is noted for the record.
- **D2-291** This information is noted for the record.
- **D2-292** This information is noted for the record.
- **D2-293** This information is noted for the record.
- **D2-294** Mr. Dames' resume and this information are noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-295** This testimony of Eric F. Hadsell on behalf of SNGS, LLC is noted. The testimony does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-296** Mr. Hadsell's resume and this information are noted. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-297** This testimony of Robert Mannon on behalf of SNGS, LLC is noted. The testimony does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-298** This information is noted for the record. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **D2-299** This information is noted for the record. The comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

E. Public Participation Hearings Testimony

Response to Document No. E1

Public Participation Hearing: Testimony of individuals Dated April 28, 2009

- E1-1 Responses to the applicant's specific comments are addressed for Document Nos. D1 and D2.
- E1-2 AGENA's comments are addressed in Document No. B5.
- **E1-3** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- E1-4 Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- E1-5 Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-6** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- E1-7 Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-8** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-9** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-10** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **E1-11** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-12** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-13** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-14** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-15** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-16** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-17** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-18** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-19** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-20** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **E1-21** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-22** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-23** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-24** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- E1-25 Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-26** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-27** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-28** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-29** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-30** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

- **E1-31** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-32** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-33** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-34** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-35** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-36** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-37** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-38** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.
- **E1-39** Comment noted; however, the comment does not raise specific issues related to the adequacy of the environmental analysis in the EIR; therefore, no additional response is provided or required.

Response to Document No. E2

Second Public Participation Hearing: Testimony of Individuals Dated October 27, 2009

- **E2-1** This testimony does not raise any issues regarding the adequacy of the EIR. No response is required.
- **E2-2** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-3** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-4** No response is required since no issues relative to the adequacy of the EIR have been raised.
- E2-5 No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-6** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-7** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-8** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-9** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-10** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-11** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-12** No response is required since no issues relative to the adequacy of the EIR have been raised.

- **E2-13** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-14** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-15** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-16** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-17** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-18** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-19** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-20** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-21** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-22** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-23** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-24** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-25** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-26** No response is required since no issues relative to the adequacy of the EIR have been raised.

- **E2-27** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-28** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-29** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-30** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-31** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-32** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-33** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-34** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-35** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-36** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-37** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-38** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-39** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-40** No response is required since no issues relative to the adequacy of the EIR have been raised.

- **E2-41** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-43** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-44** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-45** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-46** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-47** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-48** No response is required since no issues relative to the adequacy of the EIR have been raised.
- **E2-49** No response is required since no issues relative to the adequacy of the EIR have been raised.