

D. ENVIRONMENTAL ANALYSIS

D.1 Introduction to Environmental Analysis

D.1.1 Introduction/Background

This section provides discussion and full public disclosure of the significant environmental impacts of the Proposed Project and its alternatives, including the No Project Alternative. This section examines the potential environmental impacts associated with the Proposed Project as they relate to the following 12 areas of environmental analysis:

- D.2 Air Quality
- D.3 Biological Resources
- D.4 Cultural Resources
- D.5 Geology and Soils
- D.6 Hazardous Materials, Public Health and Safety
- D.7 Hydrology and Water Quality
- D.8 Land Use, Agriculture, and Recreational Resources
- D.9 Noise and Vibration
- D.10 Population and Housing
- D.11 Public Services and Utilities
- D.12 Transportation and Traffic
- D.13 Visual Resources.

Analysis within each issue area includes consideration of construction and operation of the following components of the Proposed Project:

- Wellhead site
- Compressor station site
- Pipeline connections: 16-inch interconnection between the wellhead site and compressor station site and 16-inch interconnection between the compressor station site and Sacramento Municipal Utilities District (SMUD) Line 700.

The project previously included a Yolo County interconnect component, which consisted of a buried 12-inch interconnection pipeline between SMUD Line 700 and the Pacific Gas and Electric (PG&E) Line 172 and associated metering facilities. The Yolo County interconnect has since been removed from the Proposed Project by the applicant.

Within each of the environmental areas listed above, the discussion of project impacts is provided in the following format:

- Environmental setting for the Proposed Project
- Applicable regulations, plans, and standards
- Environmental impacts and mitigation measures for the Proposed Project
- Environmental impacts and mitigation measures for the Proposed Project's alternatives, including the No Project Alternative
- Mitigation monitoring, compliance, and reporting.

In addition to the No Project Alternative, the following alternative gas fields and project design alternatives as identified by Sacramento Natural Gas Storage (SNGS), LLC for the proposed Florin Gas Field Storage Project are fully analyzed in this Environmental Impact Report (EIR):

Gas Field Alternatives

Analysis of each of the alternative gas fields within each issue area includes consideration of general construction and operation impacts of the wellhead, compressor station, and pipeline connections between the wellhead and compressor station, along with the necessary interconnect pipeline between the gas field and SMUD's system.

- **Freeport Gas Field:** The Freeport Gas Field is located approximately 5 miles southwest of the Florin Gas Field on agricultural land located on the suburban fringe of Elk Grove (see Figures C-1 and C-2). As shown in Figure C-1, a 1-mile interconnect pipeline would be required to interconnect the Freeport Gas Field to SMUD's system.
- **Snodgrass Slough Gas Field:** The Snodgrass Slough Gas Field is located approximately 20 miles southwest of the Florin Gas Field; 3 miles east of the Sacramento River and California State Highway 160; and 4 miles north of the nearest population center, Walnut Grove (see Figures C-1 and C-3). As shown in Figure C-1, a 5-mile interconnect pipeline would be required to interconnect the Snodgrass Slough Gas Field to SMUD's system.
- **Thornton Gas Field:** The Thornton Gas Field is located approximately 20 miles south of the Florin Gas Field on agricultural land south of the Cosumnes River Preserve (see Figures C-1 and C-4). As shown in Figure C-1, a 7-mile interconnect pipeline would be required to interconnect the Thornton Gas Field to SMUD's system.

Project Design Alternatives as identified by SNGS, LLC for the proposed Florin Gas Field Storage Project

- Alternative wellhead to compressor station Pipeline Route 1: Project facilities under the Alternative Pipeline Route 1 are the same as the proposed Florin Gas Field Storage Project, except for the route which the 16-inch-diameter underground natural gas pipeline would run from the wellhead site to the compressor station. As shown in Figure C-5, under this alternative the gas pipeline from the wellhead to the compressor station would run parallel to Junipero Street and cross an active industrial use yard, then run parallel to the Union Pacific Railroad (UPRR) tracks northwest to Elder Creek Road (see Figure C-5). This route would be approximately 7,800 feet long.
- Alternative wellhead to compressor station Pipeline Route 2: Project facilities under the Alternative Pipeline Route 2 are the same as the proposed Florin Gas Field Storage Project, except for the route which the 16-inch-diameter underground natural gas pipeline would run from the wellhead site to the compressor station. As shown in Figure C-5, under this alternative the gas pipeline from the wellhead to the compressor station would run approximately 600 feet north within the utility alignment to Berry Avenue, and then parallel the UPRR tracks northwest to Elder Creek Road (see Figure C-5). This alignment would be approximately 7,700 feet long.
- Alternative wellhead to compressor station Pipeline Route 3: Project facilities under the Alternative Pipeline Route 3 are the same as the proposed Florin Gas Field Storage Project, except for the route which the 16-inch-diameter underground natural gas pipeline would run from the wellhead site to the compressor station. As shown in Figure C-5, under this alternative the gas pipeline from the wellhead to the compressor station would run north approximately 1,650 feet within an existing utility alignment, and then approximately 650 feet north along Power Inn Road to Elder Creek Road. From that intersection, the pipeline would be installed within Elder Creek Road for approximately 1,800 feet to the intersection with the UPRR tracks. This route would be approximately 7,100 feet long.

D.1.2 Environmental Assessment Methodology

D.1.2.1 Environmental Baseline

Pursuant to the California Environmental Quality Act (CEQA) Guidelines (Section 15125(a)), 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 (NOP) was published.

D.1.2.2 Environmental Impacts

This 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 this document.

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). For a discussion of mitigation monitoring and reporting, refer to Section G.

Applicant Proposed Measures

In the Proponent's Environmental Assessment (PEA), SNGS, LLC identified best management practices (BMPs) in Section 2.5.7 (SNGS, LLC 2007), which have been incorporated in this EIR as applicant proposed measures (APMs) that would be implemented to avoid or reduce potential impacts from the Proposed Project. During the preparation of this EIR, these measures were assumed to be part of the Proposed Project and are not considered as California Public Utilities Commission (CPUC)-recommended 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. Table B-5 in Section B, Description of Proposed Project, provides a list of SNGS, LLC's APMs. In addition, where relevant, each environmental issue in Section D provides a list of applicable APMs that are relevant to that topic.

Impact Significance Criteria

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 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.

D.1.3 References

SNGS (Sacramento Natural Gas Storage), LLC. 2007. *Proponent's Environmental Assessment (PEA) for the Sacramento Natural Gas Storage (SNGS) Project*. Sacramento, California: Sacramento Natural Gas Storage, LLC and EIP Associates, a division of PBS&J. April 5, 2007.

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