

Executive Summary

Introduction

This Proponent's Environmental Assessment (PEA) has been prepared to support an application by Lodi Gas Storage, LLC to the California Public Utilities Commission (CPUC) for a Certificate of Public Convenience and Necessity (CPCN) for the Kirby Hills Gas Storage Project in Solano County. The application requests authorization to develop, construct, and operate an underground natural gas storage facility approximately 7 miles southeast of the City of Fairfield in Solano County.

For the purpose of this PEA and the pre-construction permitting processes, the natural gas facility and all associated components are referred to as the "proposed project." The PEA evaluates and analyzes the effects of the physical act of constructing the proposed project. When the proposed project has been approved by the CPUC and constructed, it will be referred to in the future as the "facility." The facility includes wells, pipelines, equipment, buildings, access roads, piping, instrumentation, and other components required to support the moving, conditioning, and measuring of natural gas into and out of underground gas storage.

This PEA describes each of the project facility components, construction methods, schedule, and best management practices (BMPs) that will be implemented as part of the proposed project to avoid and minimize long-term effects on environmental resources within and adjacent to the proposed facilities.

The proposed project comprises the following six primary components, which are described in detail in Chapter 2 of this PEA:

- Metering station
- Gas pipeline
- Compressor station
- Flow line
- Injection/withdrawal wells
- Temporary gas injection system

As part of the proposed project, Lodi Gas Storage will implement BMPs to avoid and minimize long-term effects on environmental resources within and adjacent to the proposed facilities. These practices, described in detail in Chapter 2 of this PEA, include:

- Designate work zones to ensure avoidance of sensitive areas.
- Prepare and implement a Construction Traffic Plan.
- Prepare and implement an Injection Plan.
- Prepare a seismic-resistant design.
- Implement air district guidelines for minimizing dust and construction emissions.
- Maintain piping components to minimize leakage of odorized gas and provide quarterly reports to CPUC of third-party notifications regarding gas odors.
- Implement noise control measures.
- Prepare and implement a Hazardous Materials Contingency Plan and Health and Safety Plan.
- Implement fire management measures.
- Develop and implement a Paleontological Resources Discovery and Management Plan.
- Implement aesthetics design measures that are consistent with Solano County's General Plan polices.
- Implement site reclamation measures.

PEA Purpose and Approach

The purpose of this PEA is to provide an adequate level of information to the CPUC to assist in determination of impacts that may be of concern and to facilitate preparation of a California Environmental Quality Act (CEQA) document. This PEA contains the project information and studies required by the CPUC's Information and Criteria List that are applicable to the proposed project.

Section V, 3 of the CPUC's Information and Criteria List states:

If it can be seen with certainty that there is no possibility that the project in question may have a significant adverse effect on the environment, the PEA for the project should be limited to a statement of this conclusion and any additional explanation or information which may be necessary for an independent evaluation of such assertion by the Commission.

Although such a conclusory statement is applicable to the proposed project, Lodi Gas Storage has provided additional detail to expedite the CPUC's review of the project and to fully demonstrate that the criterion has been satisfied. In addition, the upfront work by Lodi Gas Storage in this PEA is intended to expedite the Commission's review of the Application in order to allow for construction during the 2006 late-spring/summer/fall season and thereby have the facility in operation to meet the winter 2006–07 season.

The analysis conducted for this PEA indicates that no aspect of this project (as proposed with mitigation) would cause a significant and unavoidable impact on the environment. The analysis indicates that the proposed project would potentially result in a significant impact related to Biological Resources, Public Health and Safety, Cultural Resources, and Noise. Mitigation has been identified to reduce these potential impacts to a less-than-significant level. Potential impacts, levels of significance, and mitigation measures are summarized in Table ES-1.

Organization of the PEA

Chapter 1 of the PEA provides a general introduction and overview of the proposed project. Chapter 2 provides a detailed description of the project area, project background, facility and route selection and evaluation process, project components, construction methods, operations and maintenance program, and required permits and approvals expected for the proposed project. Chapter 2 also describes the BMPs (listed above) that have been incorporated into the project to avoid or minimize project effects. Environmental issues are described and analyzed in Chapter 3 of this PEA. An environmental setting section and impact analysis are presented for each of the environmental issues identified in the CEQA checklist. Each environmental issue is analyzed using the project information contained in Chapter 2 and based on resource-specific impact methodologies.

Chapter 3 of this PEA also provides conclusions on whether an impact would be considered "significant" under CEQA. The significance criteria are based on the State CEQA Guidelines and are defined at the beginning of each impact analysis section.

Table ES-1. Summary of Potential Impacts and Proposed Mitigation Measures Identified in the PEA

Potential Impacts	Proposed Mitigation Measures	CEQA Level of Significance before Mitigation	CEQA Level of Significance after Mitigation
3.1 Aesthetics/Visual Resources			
Impact 3.1-1: Potential to Degrade the Existing Visual Character of the Site	None proposed	LTS	LTS
Impact 3.1-2: Potential to Create New Sources of Substantial Light and Glare That Would Adversely Affect Nighttime Views in the Project Area	None proposed	LTS	LTS
Impact 3.1-3: Potential to Affect Scenic Vistas and Damage Scenic Resources along a Scenic Highway	None proposed	LTS	LTS
3.2 Air Quality			
Impact 3.2-1: Construction-Related Emissions in BAAQMD	None proposed	LTS	LTS
Impact 3.2-2: Construction-Related Emissions in Y-SAQMD	None proposed	LTS	LTS
Impact 3.2-3: Potential Exceedance of BAAQMD Operational Emission Thresholds for NO _x , ROG, and PM ₁₀	None proposed	LTS	LTS
Impact 3.2-4: Emission of Toxic Air Pollutants from Natural Gas-Fired Equipment	None proposed	LTS	LTS
Impact 3.2-5: Potential for Objectionable Odors	None proposed	LTS	LTS
3.3 Biological Resources			
Impact 3.3-1: Potential Inadvertent Effects on Potential Habitat for Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp during Construction of the Gas Pipeline and Kirby Hills Access Road Improvements	MM BIO-1: Install Temporary Construction Barrier Fencing to Protect Sensitive Biological Resources Adjacent to the Construction Zone	S	LTS
Impact 3.3-2: Potential Effects on California Tiger Salamander Aquatic and Upland Habitat and Potential Mortality of California Tiger Salamander Adults, Larvae, or Eggs during Construction of the Gas and Flow Line Pipelines	MM BIO-1: Install Temporary Construction Barrier Fencing to Protect Sensitive Biological Resources Adjacent to the Construction Zone MM BIO-2: Minimize Ground-Disturbing Activities in California Tiger Salamander Upland Habitat MM BIO-3: Monitor Construction Activities within California Tiger Salamander Upland Habitat and, If Found, Cease Construction Activities until the Salamander Has Been Removed	S	LTS

Table ES-1. Continued

Potential Impacts	Proposed Mitigation Measures	CEQA Level of Significance before Mitigation	CEQA Level of Significance after Mitigation
Impact 3.3-3: Potential Loss or Disturbance of Breeding or Wintering Burrowing Owl during Construction of the Project Facilities	MM BIO-1: Install Temporary Construction Barrier Fencing to Protect Sensitive Biological Resources Adjacent to the Construction Zone MM BIO-4: Conduct Preconstruction Surveys for Active Burrowing Owl Burrows and Implement the DFG Guidelines for Burrowing Owl Mitigation, If Burrows Are Detected in the Survey Area	S	LTS
Impact 3.3-4: Potential Loss or Disturbance of Swainson's Hawk, Northern Harrier, Loggerhead Shrike, Grasshopper Sparrow, Horned Lark, and other Non-Special-Status Tree-, Shrub-, and Ground-Nesting Migratory Birds and Raptors during Construction of the Gas Pipeline	MM BIO-1: Install Temporary Construction Barrier Fencing to Protect Sensitive Biological Resources Adjacent to the Construction Zone MM BIO-5: Avoid Disturbance of Active Nests of Swainson's Hawk, Northern Harrier, Loggerhead Shrike, Grasshopper Sparrow, Horned Lark, and other Non-Special-Status Tree-, Shrub-, and Ground-Nesting Migratory Birds and Raptors	S	LTS
Impact 3.3-5: Potential Disturbance of Migrating and Wintering Waterfowl during Construction of the Kirby Hills Project Facilities	None proposed	LTS	LTS
Impact 3.3-6: Potential Disturbance of the Bearded Popcorn-Flower Population during Kirby Hills Access Road Improvement Activities	MM BIO-1: Install Temporary Construction Barrier Fencing to Protect Sensitive Biological Resources Adjacent to the Construction Zone	S	LTS
3.4 Cultural Resources			
Impact 3.4-1: Potential Disturbance to Previously Unidentified Cultural Resources during Project Construction	MM CR-1: Stop Work If Buried Resources Are Discovered Inadvertently	S	LTS
Impact 3.4-2: Inadvertent Discovery of Native American Human Remains	MM CR-2: Comply with State Laws Relating to Native American Remains	S	LTS
Impact 3.4-3: Potential Effects on Historical Resources	None proposed	LTS	LTS
3.5 Energy and Mineral Resources			
Impact 3.5-1: Potential to Overcover or Preclude Extraction of Mineral Resources	None proposed	LTS	LTS
Impact 3.5-2: Potential to Conflict with Wind Energy Development	None proposed	LTS	LTS
3.6 Geology, Soils, and Paleontology			
Impact 3.6-1: Potential to Expose People or Structures to Damage from Earthquakes	None proposed	LTS	LTS
Impact 3.6-2: Potential to Cause Substantial Damage to Facilities from Soil Expansion/Contraction	None proposed	LTS	LTS

Table ES-1. Continued

Potential Impacts	Proposed Mitigation Measures	CEQA Level of Significance before Mitigation	CEQA Level of Significance after Mitigation
Impact 3.6-3: Potential to Cause Substantial Water Erosion	None proposed	LTS	LTS
Impact 3.6-4: Potential to Destroy a Unique Paleontological Site	None proposed	LTS	LTS
3.7 Hydrology and Water Quality			
Impact 3.7-1: Potential Degradation of Surface Water Quality during Construction of the Proposed Project	None proposed	LTS	LTS
Impact 3.7-2: Potential Degradation of Surface Water Quality during Hydrostatic Testing of the Pipeline	None proposed	LTS	LTS
Impact 3.7-3: Potential Degradation of Groundwater Quality during Well Drilling	None proposed	LTS	LTS
Impact 3.7-4: Potential Degradation of Water Quality during Operation of the Project	None proposed	LTS	LTS
Impact 3.7-5: Potential Impact on Groundwater from Drilling a Domestic Water Well	None proposed	LTS	LTS
3.8 Land Use, Planning, and Agricultural Resources			
Impact 3.8-1: Temporary Disruption of Agricultural Production during Construction	None proposed	LTS	LTS
Impact 3.8-2: Permanent Loss of Agricultural Production Capability	None proposed	LTS	LTS
Impact 3.8-3: Compatibility with Surrounding Land Uses	None proposed	LTS	LTS
Impact 3.8-4: Potential Inconsistency with Plans and Policies	None proposed	LTS	LTS
3.9 Noise			
Impact 3.9-1: Exposure of Noise-Sensitive Land Uses to Noise from Construction Activities Other Than Well Drilling	None proposed	LTS	LTS
Impact 3.9-2: Exposure of Noise-Sensitive Land Uses to Noise from Well Drilling Activities	None proposed	LTS	LTS
Impact 3.9-3: Exposure of Noise-Sensitive Land Uses to Noise from Operation of the Permanent Compressor Facility	MM NOI-1: Implement Noise-Reducing Treatments at the Compressor Facility	S	LTS
Impact 3.9-4: Exposure of Noise-Sensitive Land Uses to Noise from Operation of the Temporary Compressor Facility	None proposed	LTS	LTS

Table ES-1. Continued

Potential Impacts	Proposed Mitigation Measures	CEQA Level of Significance before Mitigation	CEQA Level of Significance after Mitigation
3.10 Public Health and Safety			
Impact 3.10-1: Potential for Public Health Hazard Involving the Use, Production, or Disposal of Hazardous Materials and Hazardous Wastes during Construction and Operation	None proposed	LTS	LTS
Impact 3.10-2: Potential Risk to Worker Safety from Exposure to Contaminants in the Soil at Construction Sites	MM PHS-1: Implement Measures to Avoid Potential Health Risks for Workers	S	LTS
Impact 3.10-3: Potential Public Health Hazard Associated with Pipeline Rupture That Could Lead to an Explosion Resulting in Property Damage or Fatalities	None proposed	LTS	LTS
3.11 Public Services and Utilities			
Impact 3.11-1: Temporary Increase in Demand for Emergency Response in the Project Area	None proposed	LTS	LTS
Impact 3.11-2: Potential Interference with Existing Utility Infrastructure	None proposed	LTS	LTS
Impact 3.11-3: Minimal Increase in Demand for Landfill Space Associated with Generation of Waste during Project Construction	None proposed	LTS	LTS
Impact 3.11-4: Disturbance of Recreational Uses	None proposed	LTS	LTS
3.12 Transportation and Circulation			
Impact 3.12-1: Temporary Increase in Traffic in the Project Area during Construction	None proposed	LTS	LTS
Impact 3.12-2: Temporary Disruption of Circulation from Facility Construction	None proposed	LTS	LTS
Impact 3.12-3: Minimal Increase in Traffic during Facility Operation	None proposed	LTS	LTS
Impact 3.12-4: Potential for Interference with Emergency Response Routes	None proposed	LTS	LTS

Notes:

CEQA significance determinations:

LTS = Less than significant.

S = Significant.