Notice of Preparation Environmental Impact Report for the Sacramento Natural Gas Storage Project Proposed by Sacramento Natural Gas Storage, LLC

Application No. 07-04-013

A. INTRODUCTION

Sacramento Natural Gas Storage, LLC (SNGS) has filed an application for a Certificate of Public Convenience and Necessity (CPCN) to the California Public Utilities Commission (CPUC) for the proposed Sacramento Natural Gas Storage Project. In accordance with the California Environmental Quality Act (CEQA) of 1970, and the State CEQA Guidelines, the CPUC has decided that an Environmental Impact Report (EIR) will be prepared to evaluate the project in accordance with the criteria, standards and procedures of the CEQA (Public Resources Code Sections 21000 et. seq.) and the State CEQA Guidelines (California Administrative Code Sections 15000 et. seq.). Therefore, as required by CEQA, this Notice of Preparation (NOP) is being sent to interested agencies and members of the public. The purpose of the NOP is to inform recipients that the lead agency is beginning preparation of an EIR and to solicit information that will be helpful in the EIR process. This notice includes a description of the project that SNGS proposes to construct and operate, a summary of potential project impacts, the times and locations of public scoping meetings, and information on how to provide comments to the CPUC.

B. PROJECT DESCRIPTION AND LOCATION

The proposed project consists of the construction and operation of a natural gas storage facility in the City of Sacramento. Proposed project components would be located within the City of Sacramento, the City of West Sacramento, the County of Sacramento, and Yolo County (see *Figure 1, Regional Map*). The proposed project includes the underground natural gas storage reservoir; a wellhead site; a compressor station; a buried 16-inch interconnection pipeline between the wellhead and compressor site; a buried 16-inch interconnection pipeline between the compressor site and Sacramento Municipal Utilities District (SMUD) Line 700; and the Yolo County interconnection consisting of a buried 12-inch interconnection pipeline between SMUD Line 700 and PG&E Line 172 and associated metering facilities. These components are described in greater detail below.

The proposed project would store natural gas in the depleted Florin Gas Field reservoir, which is situated approximately 3,800 feet below the ground surface. Natural gas was previously extracted from the Florin Gas Field by Proctor and Gamble, Vendada national, TXO Production

Corporation, and Union Oil Company until approximately 1987 when the natural gas production was depleted. At that time, the wells and appurtenance facilities were capped and abandoned in accordance with regulations set forth by the Division of Oil, Gas and Geothermal Resources (DOGGR). Currently, there is no natural gas injection or extraction equipment at any of the proposed project sites.

The following provides a description of the project location, project components, construction methods, and operation and maintenance of the gas storage facility.

Project Location

The natural gas field is centered under Danny Nunn Park (formerly Reservoir Park), at the corner of Power Inn Road and 53rd Avenue in the City of Sacramento (see *Figure 1, Regional Map*). About three-fourths of the field is in the City of Sacramento, and one quarter is in Sacramento County. In addition to the park, 695 residential parcels, 40 industrial and commercial parcels, and 10 parcels owned by the City of Sacramento are located above the field.

The wellhead site would be located at the northeast corner of the intersection of Junipero Street and Power Inn Road, and the compressor station would be located north of the wellhead site on the historic Sacramento Army Depot that is now a business park called Depot Park in the City of Sacramento (see *Figure 2, Compressor Station, Wellhead Site, and Connecting Pipelines*). A new 16-inch O.D. (outside diameter) steel pipeline would connect from the wellhead site to the compressor station and from the compressor station to an existing SMUD Line 700 located beneath Fruitridge Road.

The wellhead site and compressor station site contain predominately non-native annual grassland habitat, surrounded by residential and commercial development. There are no trees or buildings on either site, but a concrete pad is located at the compressor station site. There are no wetlands on the wellhead site, but they may occur along the pipeline alignment and to the south of the southern boundary of the compressor station site. Existing uses surrounding the wellhead site are industrial and commercial to the north, south, and east of the site, and residential to the west of the site, on the west side of Power Inn Road. The compressor station site is surrounded by industrial uses, with some open space to the south and west. A Union Pacific Railroad (UPRR) right-of-way forms the western boundary of Depot Park.

Figure 1 – Regional Map

Figure 2 – Compressor Station, Wellhead Site, and Connecting Pipelines

A new pipeline connection between SMUD Line 700 and PG&E Line 172 would be required and located partly within the jurisdiction of the City of West Sacramento and partly within an unincorporated area of Yolo County, California (see *Figure 3, Yolo County Interconnection*). A metering station would be constructed at the east end of the interconnection on a paved lot owned by the City of West Sacramento, on the northeast corner of the intersection of West Capitol Avenue and Enterprise Boulevard. The metering station would be located immediately adjacent to two existing above ground enclosed pipeline areas and would be used to measure and control gas flow within the pipeline system. The pipeline would traverse the Roland Hensley Bike Park and cross under a levee, the East Toe Drain and a portion of the Yolo Bypass using horizontal directional drilling (HDD) techniques. The pipeline interconnect is approximately 30 feet north of the Interstate 80 (I-80) Yolo Causeway. West of the project area is agricultural land within the Yolo Bypass and east of the developed portion of the City of West Sacramento.

Project Components

Table 1 provides an estimated area of impact for each project component.

TABLE 1
Project Components and Impacts

	Permanent Impact		
City of Sacramento Components			
Wellhead Site	4 acres		
Compressor Station	5 acres		
Pipeline Connection to SMUD Line 700	Impacts would be temporary		
City of West Sacramento and Yolo County Components			
Yolo County Interconnection			
Metering Station	43 x 75 feet		
Pipeline Connection to SMUD Line 700	Impacts would be temporary		

Project Construction

Construction of the wellhead site would take approximately 3 months to complete. The wells would be drilled to a depth of approximately 3,800 feet below the ground surface. The site would be graded and contoured. Construction of the compressor station is estimated to take 6 to 8 months. Construction activities associated with the metering station and pipelines could last approximately 45 days and are proposed to start in June 2008. Pipelines would be installed beneath the Morrison Creek, Elder Creek Road, the UPRR, and the East Toe Drain using the Horizontal Directional Drilling (HDD) technology.

Figure 3 – Yolo County Interconnection

Operation and Maintenance

Operation and maintenance of the proposed facility would be performed by SNGS operations and maintenance personnel.

C. POTENTIAL ENVIRONMENTAL EFFECTS

In accordance with the guidelines of CEQA, the CPUC intends to prepare an EIR to evaluate potential environmental effects of the proposed project, and to propose mitigation measures to reduce any significant effects identified. The EIR will also study the environmental impacts of potential alternatives and propose mitigation to reduce these effects.

Based on preliminary analysis of the proposed project and review of documents submitted by SNGS and other parties to the CPUC's proceedings, completion of the proposed project may result in potentially significant environmental effects. Potential issues and impacts to the existing environment include those listed in *Attachment 1*. No determinations have yet been made as to the significance of these potential impacts; such determinations will be made in the EIR after the issues are thoroughly analyzed. *Attachment 2* includes the CEQA Checklist questions that would be evaluated in an EIR if they cover issues relevant to the project. In addition to the analysis of the issues listed in *Attachment 1* and other issues raised in the scoping process, the EIR will evaluate the cumulative impacts of the project in combination with other present and planned projects in the area.

Mitigation Measures

SNGS has proposed measures that could reduce or eliminate potential impacts of the project. The effectiveness of these measures will be evaluated in the EIR and additional measures, if necessary, will be developed to further reduce impacts. When the CPUC makes its final decision on the project, it will define the mitigation measures to be adopted as a condition of project approval and will require implementation of a comprehensive mitigation monitoring program.

D. ALTERNATIVES

In compliance with CEQA, an EIR must describe a reasonable range of alternatives to the project or project location that could feasibly attain most of the project objectives and avoid or lessen any of the significant environmental impacts of the proposed project. Additionally, the No Project Alternative must also be analyzed in the EIR. This alternative describes the situation that would likely occur in the absence of the proposed project. Further, the EIR must evaluate the comparative merits of the alternatives.

SNGS discusses three alternative pipeline route variations and two alternative compressor station sites in its Proponent's Environmental Assessment (PEA), including the following.

D.1 Route Variations

Alternative Route 1

From the northwest corner of the wellhead site, this alternative would head due east to the UPRR tracks. This alternative would parallel Junipero Road and cross an active industrial use yard. It would then parallel the UPRR tracks, north to Elder Creek Road. This route would be approximately 7,800 feet long. This alternative would be approximately 450 feet longer than the proposed project.

Alternative Route 2

From the northwest corner of the wellhead site, this alignment would run approximately 600 feet north within the utility alignment to Berry Avenue, and then parallel the UPRR tracks north to Elder Creek Road. This alignment would be approximately 7,700 feet long, which is 350 feet longer than the proposed project.

Alternative Route 3

From the northwest corner of the wellhead site, this alignment 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 alternative would be approximately 7,100 feet long.

D.2 Compressor Station Site Alternatives

Alternative Site 1

This alternative would be immediately adjacent and to the east of the wellhead site, located on the northeast quadrant of Power Inn Road and Junipero Street. At least one or two additional parcels of land, currently occupied by active businesses, would have to be acquired. The compressor station would be approximately 500 feet from residences under this alternative.

Alternative Site 2

This alterative would be near Fruitridge Road, adjacent to the west site of the UPRR right of way, on the Depot Park property.

In addition to the PEA alternatives listed above, additional alternatives may be evaluated for full analysis and consideration in the Draft EIR based on additional input from agencies and the public and additional independent analysis by the CPUC environmental team.

E. PUBLIC SCOPING MEETINGS

The CPUC will conduct a public Scoping Meeting in the City of Sacramento, as shown in the table below (*Table 2*). The purpose of the meeting is to present information about the proposed project and the CPUC's decision-making process, and to listen to the views of the public on the range of issues relevant to the preparation of the Draft EIR.

TABLE 2
Public Scoping Meeting

Date	Time	Location
December 6, 2007	6:00 – 9:00 p.m.	Conference Center at Depot Park
		8215 Ferguson Street
		Sacramento, California

F. SCOPING COMMENTS

At this time, the CPUC is soliciting information regarding the topics and alternatives that should be included in the EIR. Suggestions for submitting scoping comments are presented at the end of this section. All comments must be postmarked by **December 17, 2007**. You may submit comments in a variety of ways: (1) by mail, (2) by fax (fax no. 800-371-8797), or (3) by attending a Public Scoping Meeting (see times and locations above) and making a verbal statement or handing in a written comment at the meeting.

By Mail: If you send comments by mail, please use first-class mail and be sure to include your name and return address. Please send written comments on the scope of the EIR to:

Michael Rosauer California Public Utilities Commission c/o Dudek 605 Third Street Encinitas, California 92024

A **Scoping Report** will be prepared, summarizing all of the comments received (including oral comments made at the Scoping Meetings). This report will be posted on the project website and copies will be placed in local libraries. In addition, a limited number of copies will be available upon request to the CPUC.

Suggestions for Effective Participation in Scoping

- 1. **Review the description of the project** (see *Section B* of this NOP and the maps provided).
- 2. **Review the CEQA impact assessment questions** (see *Attachment 2*).
- 3. **Attend the scoping meetings** to get more information on the project and the environmental review process (see times and dates above).
- 4. **Submit written comments** or attend the scoping meetings and **make oral comments**. Explain important issues that the EIR should cover.
- 5. **Suggest mitigation measures** that could reduce the potential impacts associated with SNGS's proposed project.
- 6. **Suggest alternatives** to SNGS's proposed project that could avoid or reduce the impacts of the proposed project.

G. FOR ADDITIONAL PROJECT INFORMATION

Internet Website

Information about this application and the environmental review process will be posted at http://www.cpuc.ca.gov/environment/info/dudek/sngs/SNGS_Home.htm. This site will be used to post all public documents during the environmental review process and to announce upcoming public meetings.

Document Repositories

This NOP and SNGS's PEA is available for review at the website listed above as well as several area libraries (see list below). The PEA was prepared by SNGS as part of the CPUC's Initial Study process and includes a detailed description of the project that SNGS proposed to construct.

Sacramento

City of Sacramento Public Library 828 I Street Sacramento, California 95814

West Sacramento

Arthur F. Turner Branch Library 1212 Merkley Avenue West Sacramento, California 95691

Yolo County

Yolo Branch Public Library 37750 Sacramento Street Yolo, California 95697

The California Public Utilities Commission hereby issues this Notice of Preparation of an Environmental Impact Report.

Michael E Roman

November 14, 2007

Michael Rosauer CPUC, Project Manager Date

ATTACHMENT 1 Summary of Potential Issues or Impacts Sacramento Natural Gas Storage Project

Environmental Issue	
Area	Potential Issues or Impacts
Aesthetics	 Construction of the proposed project may temporarily impact the surrounding visual character of the project area. Construction of the wellhead site and associated pipelines would be visible to surrounding residences and adjacent park users. Construction of the Yolo County Interconnect would be visible to drivers along the Yolo Bypass, surrounding roads, and users of surrounding recreational facilities. Permanent visual impacts would be associated with the wellhead site and Yolo County Interconnect metering station. The proposed project would introduce new light sources to the area during construction and operation activities. Permanent lighting would be associated with the wellhead and compressor station sites. The project would require consistency with visual resource goals, objectives and policies of the
	applicable General Plans of the cities of Sacramento and West Sacramento and Yolo County.
Agricultural Resources	The western portion of the pipeline associated with the Yolo County Interconnect would cross lands currently designated and zoned for agricultural uses.
Air Quality	 Project construction will produce short-term air emissions (fugitive dust and vehicle equipment exhaust). Exposure by sensitive receptors including residences and schools to pollutant emissions from project construction. Exposure by sensitive receptors to odors associated with vehicle and equipment exhaust. Potential to violate air quality standards during construction.
Biological Resources	 Project construction could impact rare, threatened, or endangered species in the project area, including but not limited to vernal pool tadpole shrimp, vernal pool fairy shrimp, California, linderiella, giant garter snake, Sanford's arrowhead, and burrowing owl. Project construction could affect open water, wetlands, and drainages. Conflict with state or local policies or ordinances protecting biological resources. An inadvertent release of bentonite drilling mud during horizontal drilling activities could be deposited in sensitive habitat, including wetlands and vernal pools.
Cultural and	The Riverbank formation of the Pleistocene Epoch could yield fossils remains that could be
Paleontological Resources	 impacted or uncovered during construction. Potential constructed-related impacts to known and unrecorded prehistoric and historic resources.
Geology and Soils	 Project construction could cause significant soil erosion or loss of topsoil. Soil compaction could occur as a result of heavy equipment use. Trench subsidence may result over the trenchline following construction. Well hole drilling and/or recent seismic activity could affect the integrity of the cap rock and underground reservoir characteristics.
Hazards and Hazardous Materials	 Existing soil contamination at the Sacramento Army Depot could affect construction workers and the public during project construction. Potential release of fuel, hydraulic fluid and lubricants during construction. Inherent risks of leaks and explosion associated with the operation of high pressure natural gas lines and storage facilities.

Environmental Issue Area	Potential Issues or Impacts
Hydrology and Water Quality	 Project construction could result in erosion and subsequent off right-of-way sedimentation, including deposition into sensitive water resources.
,	Dewatering and hydrostatic testing activities may result in sediment laden discharges.
	Contaminated groundwater may be encountered during construction.
	• Construction of permanent structures/facilities may alter drainage patterns, which may result in increased runoff, erosion, siltation and flooding off-site.
	 Accidental release of hazardous materials during construction may affect surface water and ground water quality.
	 Vertical drilling and installation of the injection/extraction wells could impact groundwater or the integrity of shallow and deep aquifers that underlie the project area.
Land Use and Planning	 Project route crosses multiple jurisdictions including cities of Sacramento and West Sacramento as well as Yolo County.
	 Potential conflict during construction of underground pipelines with parks, recreational areas, transportation corridors and bike paths.
	Potential conflict with environmental plans, policies, regulations, or habitat conservation plans.
Noise	 Construction would generate noise for a few months in several locations, including in the vicinity of residences, recreational uses, or schools.
	 Concern about ground-borne vibration, because the project would require excavation work near residences, schools and industrial uses that may be sensitive to vibration. Drilling activities associated with the wellhead site would be performed 24 hours per day.
	 Operation of the proposed compressor station may generate noise at levels above existing conditions.
Population and Housing	Potential for proposed project to encourage or accelerate growth in the region.
Public Services and Utilities	Construction of the proposed pipeline alignments could disrupt local and regional services provided through underground utilities.
	 Construction activities and operation of the proposed project may increase the demand for fire protection because there could be an increase in fire risk associated with the project components.
Recreation	• The proposed project may potentially reduce the quality of recreational experiences in open spaces and recreational facilities during construction.
	 Recreational facilities that could be affected include Roland Hensley Bike Park as well as Danny Nunn Park located west of the proposed wellhead site along Power Inn Road.
Transportation and Traffic	 Construction of the proposed project could affect traffic flow, parking, road usage and property access.
	 Impacts to local traffic could occur during construction along Power Inn Road, Fruitridge Road and Elder Creek Road during construction of underground portions of the proposed project.
	Street parking may be temporarily displaced during construction.
	Temporary closures of recreational trails and bicycle lanes.
Other Issues	 Potential environmental justice issues associated with locating natural gas storage in urbanized areas.

ATTACHMENT 2 Environmental Checklist

Following are the questions included in the California Environmental Quality Act's (CEQA) environmental checklist. These are issues that may be evaluated in an Environmental Impact Report, if they are determined to be relevant to the project.

Aesthetics

- a) Would the project have a substantial adverse effect on a scenic vista?
- b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?
- d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Agriculture

- a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?
- c) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

Air Quality

- a) Would the project conflict with or obstruct implementation of the applicable air quality plan?
- b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?
- c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

- d) Would the project expose sensitive receptors to substantial pollutant concentrations?
- e) Would the project create objectionable odors affecting a substantial number of people?

Biological Resources

- a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?
- b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?
- c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e) Would the project conflict with any local policies or ordinance protecting biological resources, such as a tree preservation policy or ordinance?
- f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Cultural Resources

- a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?
- b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

d) Would the project disturb any human remains, including those interred outside of formal cemetery?

Geology and Soils

- a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving?
 - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
 - ii) Strong seismic ground shaking?
 - iii) Seismic-related ground failure, including liquefaction?
 - iv) Landslides?
- b) Would the project result in substantial soil erosion or the loss of topsoil?
- c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in, on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
- d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks of life or property?
- e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Hazards and Hazardous Materials

- a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

- d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Hydrology and Water Quality

- a) Would the project violate any water quality standards or waste discharge requirements?
- b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of a local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?
- c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?
- d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?
- e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- f) Would the project otherwise degrade water quality?

- g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary of Flood Insurance Rate Map or other flood hazard delineation map?
- h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?
- j) Would the project be susceptible to inundation by seiche, tsunami, or mudflow?

Land Use and Planning

- a) Would the project physically divide an established community?
- b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?
- c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

Mineral Resources

- a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Noise

- a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
- c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

- d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Population and Housing

- a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes or businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Public Services

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:
 - i) Fire protection?
 - ii) Police protection?
 - iii) Schools?
 - iv) Parks?
 - v) Other public facilities?

Recreation

- a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Transportation/Traffic

- a) Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?
- b) Would the project exceed, either individually or cumulatively, a level of service standard established by the County Congestion Management Agency for designated roads or highways?
- c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
- d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves of dangerous intersections) or incompatible uses (e.g., farm equipment)?
- e) Would the project result in inadequate emergency access?
- f) Would the project result in inadequate parking capacity?
- g) Would the project conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Utilities and Service Systems

- a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

- c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
- e) Would the project result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider/s existing commitments?
- f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- g) Would the project comply with federal, state, and local statues and regulations related to solid waste?

General Issues

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
- b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?
- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?