

D.10 Population and Housing

Sections D.10.1 and D.10.2 describe the environmental and regulatory population and housing setting, respectively, for the proposed Sacramento Natural Gas Storage (SNGS) project. Section D.10.3 includes analysis and discussion of population and housing impacts resulting from the Proposed Project, while Section D.10.4 analyzes the project's alternatives. Section D.10.5 provides information on mitigation monitoring, compliance, and reporting and Section D.10.6 lists the references cited in this section.

D.10.1 Environmental Setting for the Proposed Project

This section presents comprehensive baseline population, housing, and employment data. As illustrated in Figure B-1 within Section B, Description of Proposed Project, the study area for the Proposed Project includes the City of Sacramento and the County of Sacramento. Regional, local, and site-specific socioeconomic information is presented in Sections D.10.1.1 through D.10.1.3. 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 (2008b). 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.

D.10.1.1 Demographic Characteristics

Population analysis was conducted to block-level analysis of the 2000 U.S. Census using a 0.50-mile buffer around the Florin Gas Field. The total population of the buffer area was 11,365. There were 125 blocks within this area with the densest populations concentrated 0.25 mile to the east and 0.25 mile to the southwest of the gas field. At the census tract level there are 6 tracts within a 0.5-mile buffer of the Florin Gas Field. The total population for these tracts was 35,796 (U.S. Census 2000).

At a broader scale, Table D.10-1 indicates that the year 2005 population of Sacramento County included 1,283,234 residents. During the period between 2005 and 2035, the population of Sacramento County is estimated to increase by approximately 54.8%, resulting in a 2035 population of approximately 1,986,543 residents. The year 2005 population of the City of

Sacramento was 427,409 residents, which accounts for approximately 33.3% of the total Sacramento County population. Year 2035 population projections for the City of Sacramento expect the population to increase to 642,257 residents, which is an increase of 50.3%.

**Table D.10-1
Population Characteristics**

Location	2000 Department of Finance Population*	2005 SACOG Population**	2035 SACOG Population**	2005–2035 Population Change**	2005–2035 Percent Population Change (%)
City of Sacramento	407,018	427,409	642,257	214,848	50.3
County of Sacramento	1,223,499	1,283,234	1,986,543	703,309	54.8

Sources:

*California Department of Finance 2008a.

**SACOG 2006.

For the 125 census blocks within 0.5 mile of the Florin Gas Field, 59% of residents were considered non-whites. Of the 6 census tracts within 0.5 mile of the field, 77% were considered non-whites and 22% of residents were below the poverty level.

At a broader scale, Table D.10-2 provides the total minority population and minority percentages for the study area for the year 2000. It also provides information on populations living below the poverty level for the study area for the year 2000.

**Table D.10-2
Demographic Profile for the Project Study Area**

Location	Total Population	Total Non-Hispanic Origin Population	Percent Non-Hispanic Origin Population (%)	Total Individuals Below Poverty Level	Percent Total Individuals Below Poverty Level (%)
City of Sacramento	407,018	319,044	78	79,737	12
County of Sacramento	1,222,499	1,027,609	84	169,784	14

Source: U.S. Census 2000.

D.10.1.2 Housing Characteristics

According to the 2000 U.S. Census, within the 6 census tracts within 0.5 mile of the Florin Gas Field, there were a total of 10,546 units. Of these units, 4.6% were vacant, 37% were rented, and 58% were owner occupied. On a broader scale, Table D.10-3 illustrates that in the year 2005, Sacramento County contained 524,600 housing units. During the period between 2005 and 2035, the number of housing units in Sacramento County is estimated to increase by approximately 52%, resulting in a total number of 797,643 housing units in 2035. In the year 2005, the number of housing units in the City of Sacramento was 180,946, which accounts for approximately

34.5% of the total housing units in Sacramento County. Year 2035 housing projections for the City of Sacramento expect the number of housing units to increase to 247,906, which is an increase of 37%.

**Table D.10-3
Housing Characteristics**

Location	2000 Housing Units*	2005 Housing Units*	2035 SACOG Housing Unit Projection**	2005–2035 Housing Unit Change (approximate)	2005–2035 Percent Housing Unit Change (%)
City of Sacramento	163,957	180,946	247,906	66,960	37
Vacancy Rate (%)	5.72	5.65	N/A	N/A	N/A
County of Sacramento	474,814	524,600	797,643	273,043	52
Vacancy Rate (%)	4.47	4.29	N/A	N/A	N/A

Note: N/A = Not applicable.

Sources:

* California Department of Finance 2008b.

** SACOG 2007.

D.10.1.3 Employment Characteristics

Table D.10-4 provides employment data for the year 2000 by jurisdiction. To examine labor force characteristics, it is assumed that most workers would commute from within Sacramento County. The majority of the labor force that would be involved in construction of the SNGS Facility is defined in U.S. Census Bureau statistics as "construction industry" employees. Table D.10-4 provides the total number of construction industry workers within the study area for the year 2000. According to the 2000 U.S. Census, 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%.

**Table D.10-4
Employment and Labor Force Characteristics, Year 2000**

Location	Total Labor Force	Armed Forces	Civilian				Unemployment Rate (%)
			Total Employed	Total Unemployed	Construction Industry Employees	Percent Construction Industry Employees (%)	
Sacramento County	587,086	2,200	545,925	38,961	37,223	6.8	4.2

Source: U.S. Census 2000.

D.10.2 Applicable Regulations, Plans, and Standards

The following section presents the federal, state, and regional plans and standards that pertain to the Proposed Project and its alternatives.

D.10.2.1 Federal

There are no federal regulations, plans, and/or standards related to population and housing that are directly applicable to the SNGS project. However, because the issue of environmental justice was raised during public scoping, it is addressed in this section.

As defined by the Environmental Protection Agency's (EPA's) *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* (1998), environmental justice is:

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socio-economic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

In addition, President Clinton's 1994 Executive Order 12898 (59 FR 7629) requires that "each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

D.10.2.2 State

The California Environmental Quality Act (CEQA) Guidelines, (California Code of Regulations Title 14, Chapter 3) Section 15131 state the following:

- Economic or social effects of a project shall not be treated as significant effects on the environment.
- Economic or social factors of a project may be used to determine the significance of physical changes caused by the project.

- Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce and/or avoid the significant effects on the environment.

D.10.2.3 Regional and Local

Local governments in the Sacramento region are using the Blueprint Alternative (SACOG 2007) to sculpt the long-term planning framework for the Sacramento Region. The SACOG Board of Directors adopted the Preferred Blueprint Alternative in December 2004, which provides a vision for smart growth that promotes compact, mixed-use development and more transit choices as an alternative to low-density development. The Blueprint Alternative depicts a way for the region to grow through the year 2050 that is consistent with identified growth principles. The Blueprint Alternative is intended to provide a broad context in which local and regional decisions can be made to foster a healthy environment, a thriving economy, and a high quality of life for all residents.

In order to achieve the regional goal of enhancing the quality of life for the region's citizens, seven principles of smart growth are identified as follows:

- Provide a variety of transportation choices
- Offer housing choices and opportunities
- Take advantage of compact development
- Use existing assets
- Mix land uses
- Preserve open space, farmland, and natural beauty, through natural resources conservation
- Encourage distinctive, attractive communities with quality design.

Of particular relevance to this section is goal two from the list above. Offering housing choices refers to the provision of a variety of places where people can live, including apartments, condominiums, townhouses, and single-family detached homes; thus creating opportunities for the variety of people who require housing—families, singles, seniors, and people with special needs. This issue is of special concern for the very low, low, and moderate income people for whom finding housing, especially housing near work, is challenging. By providing a diversity of housing options, more people have housing choices.

D.10.3 Environmental Impacts and Mitigation Measures

D.10.3.1 Definition and Use of Significance Criteria

In accordance with Appendix G of the CEQA Guidelines, the Proposed Project would have a significant impact to population and housing if it would result in any of the following conditions:

- Inducement of substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)
- Inducement of substantial population growth or the need for additional housing in an area through the required labor force
- Displacement of substantial numbers of existing housing or persons necessitating the construction of replacement housing elsewhere.

Environmental Justice

Although not required under CEQA, for purposes of the analysis conducted in this Environmental Impact Report (EIR), the Proposed Project would have a significant impact to environmental justice if it would result in any of the following conditions:

- Disproportionate environmental degradation in low-income/minority communities
- Does not result in equity of economic benefits of the proposed project in low-income/minority communities.

Property Values

As required by CEQA, this document analyzes the physical effects of the Proposed Project on the environment. This analysis does not include changes in property values because these changes are not physical in nature. While property values may change in response to physical changes in the environment, there is not a measurable relationship between physical changes and property values. Changes in property values are typically the result of market forces and not the result of facilities proposed for this project.

D.10.3.2 Applicant Proposed Measures

There are no applicant proposed measures (APMs) proposed by SNGS, LLC for impacts related to population and housing. However, the applicant will pay a royalty to each property owner living above the Florin Gas Field during the duration of the Proposed Project.

D.10.3.3 Population and Housing Impact Analysis

Impact P-1: Directly or Indirectly Induced Population Growth

Typically, the growth-inducing potential of a project would be considered significant if it stimulates human population growth or a population concentration above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. The CEQA Guidelines (Section 15126.2(d)) identify a project to be growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plan policies.

Construction activities resulting from project implementation would be considered short term and temporary. The construction and operation of the project itself would not affect the employment patterns in the area. The total number of workers at any one site will vary depending on the construction activity, but SNGS, LLC anticipates a maximum of 30 workers at the wellhead site, 20 along the pipeline route, and 40 at the compressor station site at one time. Approximately 70% of the total construction labor force required to develop the Proposed Project is expected to be local labor from the Sacramento area (105 to 140 employees). As shown in Table D.10-4, 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. The remaining 30% of workers would be hired from outside the area for specialized construction techniques, such as well drilling, pipe welding, and horizontal directional drilling (HDD). Workers from outside the area would be expected to find temporary housing in the greater Sacramento area during the construction period. Given the brief construction period, family members are not anticipated to accompany non-local workers. Therefore, there would be no population growth due to project construction. See Section F.1, Growth-Inducing Effects, for further discussion.

As the Proposed Project would be supporting anticipated regional growth rather than facilitating future energy development, it is not expected that the Proposed Project itself would increase regional population. Therefore, there would be no population-growth-related impacts.

Impact P-2: Induced Demand for Housing

Because few, if any, construction workers are expected to permanently relocate to the area as a result of construction activities associated with the SNGS Facility (see Impact P-1), no new demand for housing would occur. Temporary accommodations might be needed during construction, but with numerous hotels and motels in the area, impacts are expected to be less than significant (Class III), requiring no mitigation. Refer to Section D.1 for classification of impact significance.

Impact P-3: Displacement of People or Existing Housing

The proposed SNGS Facility is located within a developed area on land designated for industrial uses. Construction would occur within existing SNGS, LLC parcels and pipeline installation would traverse within approved right-of-way areas. No elements of the Proposed Project would require the removal or relocation of any residential units or business uses. Therefore, the Proposed Project would not result in any displacement impacts.

Impact P-4: Environmental Justice

The residential neighborhoods that are located above the Proposed Project's underground natural gas reservoir would be considered disadvantaged according to EPA guidelines. The aboveground facilities that are planned for the project would be located on vacant land, some of which is on the former Army Depot site that is not located in a residential neighborhood. Aboveground facilities are adjacent to disadvantaged populations. A public scoping meeting was held in this area and residents and their representatives expressed their concerns relative to the Proposed Project. Given that the project is compatible from a land-use perspective (see Section D.8, Land Use, Agriculture, and Recreational Uses, of this EIR) and would not displace existing uses, it would not disproportionately degrade minority or low-income communities. Furthermore, the applicant has proposed to pay a royalty to each property owner living above the Florin Gas Field during the duration of the Proposed Project. Therefore, it is anticipated that the project would result in equity¹ of economic benefits of the Proposed Project in low-income/minority communities.

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. Many houses were located over the Florin Gas Field when it was an operating gas field. As discussed in Section D.6 of this 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 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

¹ Equity in this sense means a fair economic benefit to each property owner living above the Florin Gas Field.

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 further reduce the potential for occurrence, but not to less-than-significant levels.

Impact P-5: Urban Decay and Degradation

Concern was raised during the public scoping process regarding the potential for declining property values leading to urban decay and degradation. As discussed in the impact significance criteria, the impact of a project on property values is highly speculative and is the result of many factors not related to the project. For example, a review of the project area indicates a number of homes in disrepair and presumably in foreclosure due to the housing downturn. Because the Proposed Project will not result in significant land-use changes, no potential significant impact resulting in urban decay or degradation from the project is anticipated.

D.10.4 Project Alternatives

D.10.4.1 Alternative Storage Site Locations

Freeport Gas Field

Environmental Setting

Section D.10.1 describes the existing population and housing characteristics of the region. The Freeport Gas Field alternative site is located in a suburban fringe area and is partially located underneath a wastewater treatment plant. The area is surrounded on the north, west, and south by the City of Elk Grove (population 59,984) (U.S. Census 2000). The actual reservoir area contains few homes and little population.

Environmental Impacts and Mitigation Measures

With the exception of environmental justice impacts, the population and housing impacts of this alternative would not be substantially different than those associated with the Proposed Project. Localized need for short-term construction workers would occur in the same manner as the Proposed Project. It is expected that the majority of workers required to develop this alternative would be drawn from the local labor force. No population growth would occur (Impact P-1), no new demand for housing would occur (Impact P-2), and no people or housing would be displaced (Impact P-3). Because this alternative would not place substantial facilities in the area and would presumably provide royalties to the land owners, there would not be any

environmental justice issues (Impact P-4) and the project would not lead to urban decay or degradation (Impact P-5).

Comparison to the Proposed Project

Population and housing impacts resulting from this alternative would not be substantially different from the Proposed Project because this alternative would not place substantial facilities in the area and would presumably provide royalties to the land owners.

Snodgrass Slough Gas Field

Environmental Setting

Section D.10.1 describes the existing population and housing characteristics of the region. The Snodgrass Slough Gas Field alternative site is located on a former gas field that is located in a primarily agricultural area. The nearest population center is Walnut Grove, 4 miles to the east with a population of approximately 669 (U.S. Census 2000).

Environmental Impacts and Mitigation Measures

With the exception of environmental justice impacts, the population and housing impacts of this alternative would not be substantially different than those associated with the Proposed Project. Localized need for short-term construction workers would occur in the same manner as the Proposed Project. It is expected that the majority of workers required to develop this alternative would be drawn from the local labor force. No population growth would occur (Impact P-1), no new demand for housing would occur (Impact P-2), and no people or housing would be displaced (Impact P-3). Because this alternative would not place substantial facilities in the area and would presumably provide royalties to the land owners, there would not be environmental justice issues (Impact P-4) and the project would not lead to urban decay or degradation (Impact P-5).

Comparison to the Proposed Project

Population and housing impacts resulting from this alternative would not be substantially different from the Proposed Project because this alternative would not place substantial facilities in the area and would presumably provide royalties to the land owners..

Thornton Gas Field

Environmental Setting

Section D.10.1 describes the existing population and housing characteristics of the region. The Thornton Gas Field alternative site is located in a primarily agricultural area. The nearest

population center is Thornton (population 4,650), approximately 1 mile to the north (U.S. Census 2000).

Environmental Impacts and Mitigation Measures

With the exception of environmental justice impacts, the population and housing impacts of this alternative would not be substantially different than those associated with the Proposed Project. Localized need for short-term construction workers would occur in the same manner as the Proposed Project. It is expected that the majority of workers required to develop this alternative would be drawn from the local labor force. No population growth would occur (Impact P-1), no new demand for housing would occur (Impact P-2), and no people or housing would be displaced (Impact P-3). Because this alternative would not place substantial facilities in the area and would presumably provide royalties to the land owners, there would not be any environmental justice issues (Impact P-4) and the project would not lead to urban decay or degradation (Impact P-5).

Comparison to the Proposed Project

Population and housing impacts resulting from this alternative would not be substantially different from the Proposed Project because this alternative would not place substantial facilities in the area and would presumably provide royalties to the land owners.

D.10.4.2 Project Design Alternatives

Environmental Setting

The project design alternatives described herein would use the same construction locations for the wellhead site, compressor station, and SMUD Line 700 tie-in as the Proposed Project. Section D.10.1 of this section describes the population and housing characteristics of this region. Because the alternative pipeline routes would occur within the same vicinity as the Proposed Project, the existing population and housing characteristics would be the same for all the gas pipeline route alternatives, as described in Section D.10.1.

Alternative Wellhead Site to Compressor Station Pipeline Route 1

Environmental Impacts and Mitigation Measures

This alternative locates connecting pipelines slightly further from populated areas. The population and housing impacts of this alternative would not be substantially different than those associated with the Proposed Project. Localized need for short-term construction workers would occur in the same manner as the Proposed Project. It is expected that the majority of workers required to develop this alternative would be drawn from the local labor force. No population growth would occur (Impact P-1), no new demand for housing would occur (Impact P-2), no

people or housing would be displaced (Impact P-3), environmental justice issues would be similar to those for the Proposed Project (Impact P-4), and the project would not lead to urban decay or degradation (Impact P-5).

Comparison to the Proposed Project

Population and housing impacts resulting from developing this alternative would not be substantially different than those associated with the Proposed Project.

Alternative Wellhead Site to Compressor Station Pipeline Route 2

Environmental Impacts and Mitigation Measures

This alternative locates connecting pipelines slightly further from populated areas. The population and housing impacts of this alternative would not be substantially different than those associated with the Proposed Project. Localized need for short-term construction workers would occur in the same manner as the Proposed Project. It is expected that the majority of workers required to develop this alternative would be drawn from the local labor force. No population growth would occur (Impact P-1), no new demand for housing would occur (Impact P-2), no people or housing would be displaced (Impact P-3), environmental justice issues would be similar to those for the Proposed Project (Impact P-4), and the project would not lead to urban decay or degradation (Impact P-5).

Comparison to the Proposed Project

Population and housing impacts resulting from developing this alternative would not be substantially different than those associated with the Proposed Project.

Alternative Wellhead Site to Compressor Station Pipeline Route 3

Environmental Impacts and Mitigation Measures

This alternative locates connecting pipelines slightly further from populated areas. The population and housing impacts of this alternative would not be substantially different than the Proposed Project. Localized need for short-term construction workers would occur in the same manner as the Proposed Project. It is expected that the majority of workers required to develop this alternative would be drawn from the local labor force. No population growth would occur (Impact P-1), no new demand for housing would occur (Impact P-2), no people or housing would be displaced (Impact P-3), environmental justice issues would be similar to those for the Proposed Project (Impact P-4), and the project would not lead to urban decay or degradation (Impact P-5).

Comparison to the Proposed Project

Population and housing impacts resulting from developing this alternative would not be substantially different than those associated with the Proposed Project.

D.10.4.3 Environmental Impacts of the No Project Alternative

Under the No Project Alternative, none of the facilities associated with the project or alternatives evaluated in this EIR would be developed. Therefore, none of the short-term impacts due to the need for temporary construction workers or the environmental justice issues due to development within an area that is considered disadvantaged (as described previously in this section) would occur. However, in the event of disruption of the Pacific Gas and Electric (PG&E) natural gas pipelines 400/401, PG&E may be required to implement cutbacks on nonessential energy use and may run out of natural gas at some locations, thereby potentially affecting population growth and housing in the Sacramento metropolitan area.

D.10.5 Mitigation Monitoring, Compliance, and Reporting

Because no significant impacts related to population and housing would occur, no mitigation is proposed or required.

D.10.6 References

- 59 FR 7629. Executive Order 12898 of February 11, 1994. Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. February 16, 1994.
- California Department of Finance. 2008a. *Table 2: E-4 Population Estimates for Cities, Counties and State, 2001–2008 with 2000 Benchmark*. Sacramento, California. May 2008.
- California Department of Finance. 2008b. *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2001–2008, with 2000 Benchmark*. Sacramento, California. May 2008.
- EPA (Environmental Protection Agency). 1998. *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses*. Prepared by the EPA and Science Applications International Corporation. April 1998. Accessed at: http://www.epa.gov/compliance/resources/policies/ej/ej_guidance_nepa_epa0498.pdfEPA
- SACOG (Sacramento Area Council of Governments). 2006. SACOG Information Center [website]. 2005 population estimate.

SACOG. 2007. *Special Report: Preferred Blueprint Alternative*. Adopted December 2004; amended June 2007. Accessed at: http://www.sacregionblueprint.org/sacregionblueprint/the_project/BP_Insert_JAN_2005.pdf

SACOG. 2008. *Draft Metropolitan Transportation Plan for 2035 (MTP2035)*. Adopted March 2008. Table 2: Population Growth and Distribution, 2005–2035 by Jurisdiction.

SACOG. n.d. *Examples from the Sacramento Region of Better Ways to Grow: The Seven Principles of Smart Growth*. Accessed at: <http://www.sacog.org/regionalfunding/betterways.pdf>

U.S. Census. 2000. "Data Year 2000." *U.S. Census Bureau American Fact Finder*. Accessed at: http://factfinder.census.gov/home/saff/main.html?_lang=en