

Chapter 4 Alternatives

4.1 Factors Used in Selection of Alternatives

4.1.1 Alternatives Development and Screening Process

One of the most important aspects of the environmental review process is the identification and assessment of reasonable alternatives that have the potential for avoiding or minimizing the impacts of a proposed project. CEQA does not require a review of alternatives where, as is the case with the Sacramento Natural Gas Storage Project, the proposed project would not result in significant impact(s) after mitigation (see Guidelines Sec, 15126.6, subd. (a) and (f)(2)(A)). However, a discussion of alternatives reviewed by SNGS is included for CPUC's review.

The location of the storage field, and the development that has occurred above it, limits possible alternative locations for the wellhead site. However SNGS identified several potential pipeline alignment alternatives (Figure 4-1) and potential compressor station sites (Figure 4-2) during the planning phase of this project. The alternatives were surveyed to identify potential sensitive resource issues and constraints. EIP/PBS&J and the project engineering team conceptually evaluated each of the pipeline alternatives in order to develop a project that minimized potential impacts on local traffic and environmental resources, minimized potential state and federal permit triggers, and was cost-effective. The proposed project shown in Figure 2-2 was determined to be the best project layout because it would avoid and minimize resource impacts, avoid state and federal permit triggers (where possible), and meet the various landowners' needs and restrictions.

4.1.2 Alternatives Screening Methodology

Alternatives to the proposed project were selected based on the input from SNGS and its consultants. The alternatives screening process consisted of three steps:

Step 1: Define the alternatives to allow comparative evaluation.

Step 2: Evaluate each alternative in consideration of one of more of the following criteria:

- The extent to which the alternative would accomplish most of the basic goals and objectives of the proposed project;
- The extent to which the alternative would avoid or lessen one or more of the identified potentially-significant environmental effects of the proposed project;
- The potential feasibility of the alternative, taking into account site suitability, economic viability, availability of infrastructure, General Plan consistency, and consistency with other applicable plans and regulatory limitations; and
- The requirement of the CEQA Guidelines to consider a “no project” alternative and to identify, under specific criteria, an “environmentally superior” alternative in addition to the “no project” alternative (CEQA Guidelines, section 15126.6(e)).



ROUTE 3



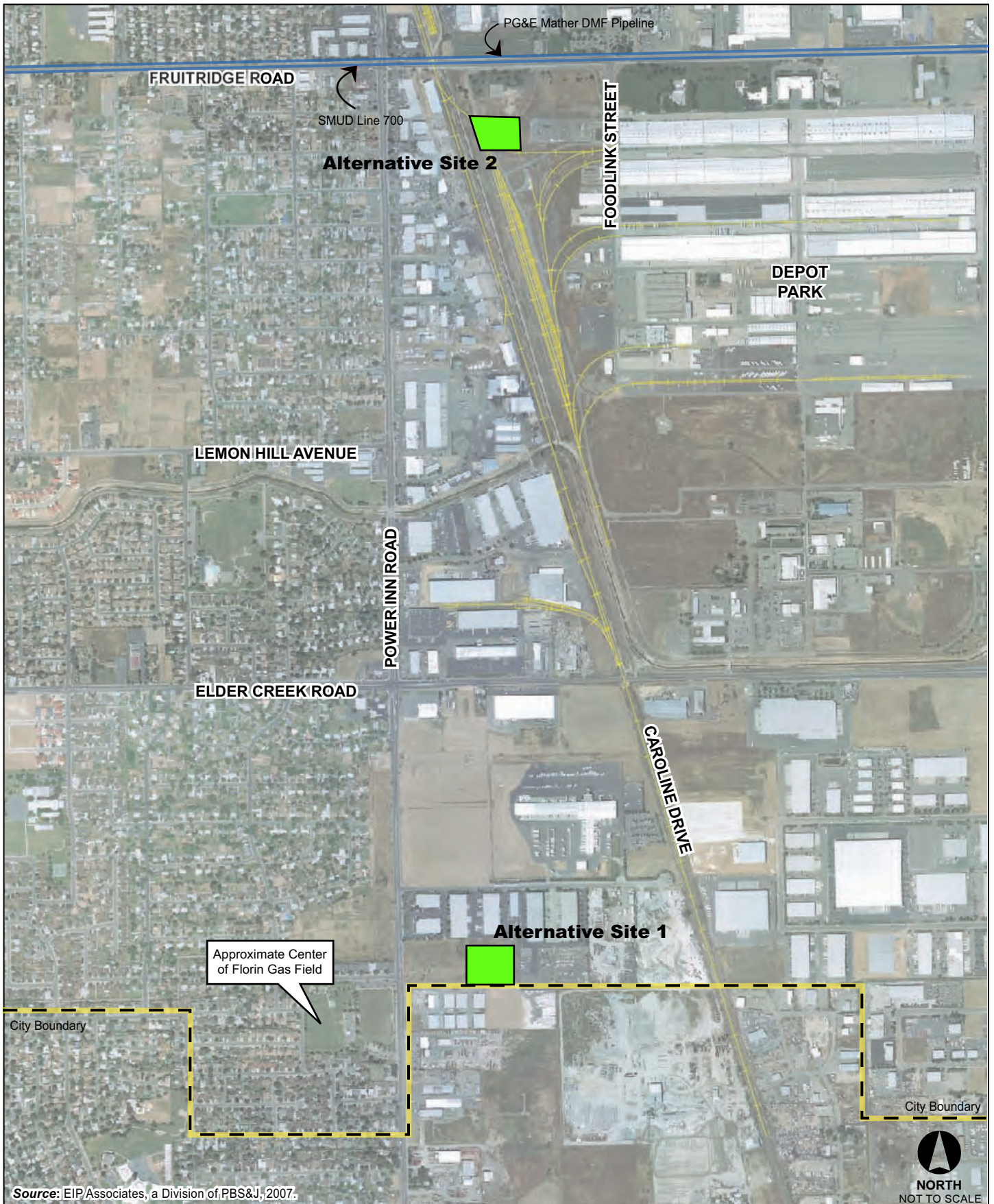
ROUTE 2



SMUD Line 700

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FIGURE 4-2
Alternative Compressor Station Sites

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Sacramento Natural Gas Storage Project PEA

Step 3: Determine suitability of the proposed alternative for full analysis in the environmental evaluation. If the alternative is unsuitable, eliminate it, with appropriate justification, from further consideration.

At the screening stage, it is not possible to evaluate the potential impacts of the alternatives or the proposed project with absolute certainty. However, it is possible to identify elements of the proposed project that are likely to be the sources of impact. A preliminary assessment of potential significant effects of the proposed project resulted in identification of the following impacts:

- Biological resources (including listed wildlife and plant species) and sensitive habitats that could be affected by construction.
- Construction impacts (traffic, air quality, noise) on sensitive receptors, especially residential areas.
- Cultural and paleontological resources along the proposed pipeline routes.
- Geologic hazards, including strong seismic ground shaking and unstable soil units.

For the screening analysis, the technical and regulatory feasibility of various potential alternatives was assessed at a general level. Specific feasibility analyses are not needed for this purpose. The assessment of feasibility was directed toward reverse reason, that is, an attempt was made to identify anything about the alternative that would be infeasible based on technical or regulatory grounds. CEQA does not require elimination of a potential alternative based on cost of construction and operation/maintenance. For the proposed project, those issues relate to:

- Disturbance to wetland resources and special status species habitat.
- Availability of space in roads and railroad or utility corridors and the likelihood of obtaining a right-of-way easement from these owners.

4.2 Alternatives Evaluated in this PEA

4.2.1 Introduction

Alternative compressor station sites were evaluated as individual sites. An alternative pipeline route could relocate a portion of the proposed route or the entire route. Alternative routes would not affect the ability of the proposed project to achieve the desired project objectives. Therefore, these alternatives were considered in the context of their ability to reduce the significant environmental impacts of the proposed project (prior to mitigation) and their technical and regulatory feasibility.

Through the alternatives screening process, described in Section 4.1.1, three alternative route variations and two alternative compressor station sites were chosen for analysis in this PEA. These alternatives, the Alternative Routes 1, 2, and 3 and the Alternative Sites 1 and 2 are illustrated in Figure 4-1 and 4-2, respectively and are described in Sections 4.2.3 and 4.2.4, respectively. The No Project Alternative is described in Section 4.2.2.

4.2.2 No Project Alternative

Description – The No Project Alternative would not result in development of the proposed project; therefore, the construction and operation of a natural gas storage field and associated facilities at the Florin Gas Field would not occur. No potentially significant impacts on biological resources, cultural resources, hydrology and water quality, noise, and public services and utilities would occur under the No Project Alternative.

The CPUC and the California Energy Commission have emphasized the continuing state-wide need for natural gas storage projects in Energy Action Plan II, adopted in October 2005, in stating jointly that “California must also promote infrastructure enhancements, such as additional pipeline and storage capacity” and included in the “KEY ACTIONS” list of their Energy Action Plan II the objective to “[e]ncourage the development of additional in-state natural gas storage to enhance reliability and mitigate price volatility.” Governor Schwarzenegger also has called specifically for in-state natural gas storage capacity increases as an element of a sustainable energy policy in California.¹ These policy objectives would not be furthered by the No Project Alternative.

Required Agency Approvals – No agency approvals would be required under the No Project Alternative because the proposed project would not be constructed.

4.2.3 Route Variations

Three route variations, in addition to the proposed project, were evaluated for impacts and constructability for the southern portion of the pipeline route, from the wellhead site to the northeast corner of the intersection of Elder Creek Road and the UPRR tracks. Alternative routes from Elder Creek Road to the compressor station were analyzed as part of the proposed project. No alternative routes were identified for the pipelines from the compressor station to the existing PG&E and SMUD pipelines in Fruitridge Road.

Alternative Route 1

Alternative Route 1 Description – 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.

Alternative Route 1 Environmental Impacts – This alternative would be approximately 450 feet longer than the proposed project. This alternative would differ in severity of the potentially-significant impacts discussed below; there would be no change in impact severity for the other environmental resources.

¹ Letter dated August 23, 2005 from Governor Arnold Schwarzenegger to the Hon. Don Perata, President pro tempore of the Senate.

Biological Resources – Potentially-significant impacts on biological resources would occur under this alternative compared to the proposed project. Mitigation Measures MM BIO-1 through MM BIO-6 would be required for both this alternative and the proposed project, as discussed in Section 3.5, to reduce impacts to less-than-significant levels. In addition to the impacts discussed in Section 3.5, Alternative Route 1 would require construction activities along the UPRR tracks, in an area with many seasonal wetlands that likely support threatened or endangered species. While some impacts to this habitat type would occur under the proposed project, this alternative would increase the severity of this impact by approximately 70 percent, when compared to the proposed project.²

Required Agency Approvals – This route would require the same agency approvals as the proposed project.

Alternative Route 2

Alternative Route 2 Description – 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.

Alternative Route 2 Environmental Impacts – This alternative would be approximately 350 feet longer than the proposed project. This alternative would differ in severity of the potentially-significant impacts discussed below; there would be no change in impact severity for the other environmental resources.

Biological Resources – Potentially-significant impacts on biological resources would occur under this alternative compared to the proposed project. Mitigation Measures MM BIO-1 through MM BIO-6 would be required for both this alternative and the proposed project, as discussed in Section 3.5, to reduce impacts to less-than-significant levels. In addition to the impacts discussed in Section 3.5, Alternative Route 2 would require construction activities along the UPRR tracks, in an area with many seasonal wetlands that likely support threatened or endangered species. While some impacts to this habitat type would occur under the proposed project, this alternative would increase the severity of this impact by approximately 60 percent, when compared to the proposed project.³

Transportation/Traffic – This alternative would require approximately 2,300 feet of construction along Berry Road, which serves as an access route to several industrial facilities located north and south of the road. The establishment of a Traffic Control Plan would still be required, but would be more complex than the plan required for the proposed project.

Required Agency Approvals – This route would require the same agency approvals as the proposed project.

² This is based on the length of this alignment along the UPRR tracks, assuming that the percent cover of wetlands is the same along each segment.

³ This is based on the length of this alignment along the UPRR tracks, assuming that the percent cover of wetlands is the same along each segment.

Alternative Route 3

Alternative Route 3 Description – From the northwest corner of the wellhead site, this alignment would run north approximately 1,650 feet within an existing the 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.

Alternative Route 3 Environmental Impacts – This alternative would be approximately 250 shorter in length compared to the proposed project. This alternative would differ in severity of the potentially-significant impacts discussed below; there would be no change in impact severity for the other environmental resources.

Biological Resources – This route, in it of itself, would result in no impacts on biological resources, compared to the proposed project and the two alternative routes listed above. Impacts BIO-1, BIO-2, BIO-4 through BIO-6 and BIO-8 would still occur during construction of other project components. Mitigation Measures MM BIO-1 through MM BIO-6 would still be required for other project components or the proposed project as discussed in Section 3.5, to reduce impacts to less-than-significant levels.

Transportation/Traffic – This alternative would require approximately 2,450 feet of construction within heavily used road right-of-ways. Lane closures would be likely along both Power Inn and Elder Creek roads, the use of which is described in Chapter 3.14. The establishment of a Traffic Control Plan would still be required, but would be more complex than the plan required for the proposed project or the other alternatives.

Required Agency Approvals – This alternative would require the same agency approvals as the proposed project.

4.2.4 Compressor Station Site Alternatives

Two compressor station sites, in addition to the site chosen for the proposed project, were evaluated for impacts and constructability.

Alternative Site 1

Alternative Site 1 Description – 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 1 Environmental Impacts – This alternative would differ in severity of the potentially-significant impacts discussed below.

Aesthetics – Potentially significant impacts on aesthetics would occur under this alternative compared to the proposed project. Under this alternative, the compressor station would be located closer to sensitive receptors, thus degrading the existing visual character or quality of the project area. The wall around the wellhead site would reduce some of the visual impact, but additional mitigation would be likely.

Biological Resources – Potentially-significant impacts on biological resources would occur under this alternative compared to the proposed project. Mitigation Measures MM BIO-1 through MM BIO-6 would be required for both this alternative and the proposed project, as discussed in Section 3.5, to reduce impacts to less-than-significant levels. In addition to the impacts discussed in Section 3.5, Alternative Site 1 would require construction activities in a potential wetland located adjacent to the wellhead site, which could support threatened or endangered species. While some impacts to this habitat type might occur under the proposed project, this alternative would increase the severity of this impact.

Noise – Potentially significant impacts on noise would occur under this alternative compared to the proposed project. Mitigation Measures MM NOI-1 through MM NOI-3 would be required for this alternative, as with the proposed project, but additional mitigation would also likely be required to reduce impacts associated with the permanent source of industrial noise within 500 feet of a residential area.

Required Agency Approvals – This alternative would require the same agency approvals as the proposed project.

Alternative Site 2

Alternative Site 2 Description – This alternative would be near Fruitridge Road, adjacent to the west of the UPRR right of way, on the Depot Park property.

Alternative Site 2 Environmental Impacts – This alternative would differ in severity of the potentially-significant impacts discussed below.

Aesthetics – Under this alternative the compressor station would be located near the entrance of Depot Park. The compressor station would be visible from Fruitridge Road, which does not have any sensitive receptors. While not significant in terms of physical environmental effects, this location could detract from the aesthetic quality of Depot Park.

Required Agency Approvals – This alternative would require the same agency approvals as the proposed project.