



SR-710 Study

Alternatives Analysis Report

Appendix P

Hazardous Waste Environmental Screening

Technical Memorandum





SR-710 Study

TECHNICAL MEMORANDUM

Hazardous Waste Environmental Screening Technical Memorandum

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The purpose of this technical memorandum is to identify environmental aspects that could impact the design/construction of proposed alternatives of the State Route (SR) 710 Gap project. A rating system developed to rank the proposed alternatives on the outcome of the Level 2 screening is outlined as follows. This preliminary Level 2 screening is not intended to be a detailed screening consistent with the U.S. Environmental Protection Agency's (USEPA's) "Standards and Practice for All Appropriate Inquiries" or the "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" ASTM International (ASTM E-1527-05).

SR 710 Project

The SR-710 project area primarily comprises the western San Gabriel Valley, the southern San Rafael Hills, the eastern portion of the Elysian Hills, and the Repetto Hills areas of the Los Angeles-Pasadena. The westernmost part of the SR 710 project area consists of the Elysian Hills at the eastern end of the Santa Monica Mountains (Transverse Ranges). The Repetto Hills consist of a group of small hills and valleys between the Santa Monica Mountains/Elysian Hills and the Puente Hills (Peninsular Ranges) on the southeast. The San Rafael Hills occupy the northwest part of the study area between the Repetto Hills and the Verdugo Hills. The eastern half of the SR 710 project area is within the San Gabriel Valley and its northwestern counterpart, the Raymond Basin.

Environmental Screening Methodology

Level I Screening

Environmental conditions related to hazardous materials were not considered part of the Level I screening for each alternative as this screening was focused on other preliminary screening conditions. In the preliminary screening, an unscreened set of alternatives was identified during project initiation through a process that included a review of prior studies and public input received during the "710 Conversations" scoping process conducted by the Los Angeles Metropolitan Transportation Authority (Metro) and the California Department of Transportation (Caltrans) in 2011.

Level II Screening

To evaluate the environmental conditions for the alignments and to provide a final rating, the following methodologies were used:



Records Review

The purpose of the records review was to review records that will help identify recognized environmental conditions (RECs) in connection with each alignment. This review was conducted using electronic environmental database reports generated by Environmental Data Resources, Inc. (EDR). The EDR database search report was prepared on October 20, 2008, and was reviewed for sites with RECs within or in close proximity to each of the alignments. In addition, the alignments and their vicinity were screened using data provided by the online database "GeoTracker" maintained by the California State Water Resources Control Board (SWRCB) and "Envirostor" maintained by the California Department of Toxic Substances Control (DTSC).

The preliminary screening consisted of a corridor-based search of the previously listed databases using search distances listed in Section 8.2.1 of ASTM Standard E1527-05 from the anticipated centerline of each alignments (generally 0.5 to 1.0 mile from alignment centerline).

The environmental preliminary screening consists of various assumptions, including the following:

- (1) The scope of this preliminary environmental screening is limited to review of public records through various databases and does not include verifying RECs based on environmental testing. Verification of RECs will be conducted at a later stage (if required) based on the findings and conclusions of this preliminary screening. The previously mentioned database may not cover all areas that comprise the project area; therefore, data gaps are inevitable during this preliminary assessment. Once an alternative is selected, a more-detailed assessment will be conducted. In addition, this preliminary environmental screening does not include site reconnaissance, agency file reviews, and other environmental records review.
- (2) Searches in selected environmental databases were conducted. This methodology does not represent or satisfy the requirements of a Phase I Environmental Site Assessment as defined by ASTM Standard Practice E1527-05, nor is it intended to satisfy the requirements of All Appropriate Inquiry (AAI) as defined in Title 40 *Code of Federal Regulations* (CFR) Part 312.
- (3) This environmental preliminary screening is a high-level assessment for the proposed project alignments and does not include the ASTM Standard "non-scope considerations," such as the following:
 - Radon
 - Lead in drinking water
 - Wetlands
 - Regulatory compliance
 - Cultural and historic resources
 - Industrial hygiene
 - Health and safety
 - Ecological resources
 - Endangered species
 - Indoor air quality
 - Biological agents
 - Mold
- (4) The scope of this preliminary environmental screening does not include assessment for asbestos-containing materials, aerially deposited lead, and treated lumber.

As part of the Level 2 screening of the 12 proposed alternatives and three variations (No Build, Transportation System Management/Traffic Demand Management [TSM/TDM], Bus Rapid Transit-1 [BRT-1], Bus Rapid Transit-6A [BRT-6a], Bus Rapid Transit-6 [BRT-6], Light Rail Transit-4A [LRT-4A], Light Rail Transit-4B [LRT-4B], Light Rapid Transit-4D [LRT-4D], Light Rapid Transit-6 [LRT-6], Freeway-2 [F-2], Freeway-5 [F-5], Freeway-6 [F-6], Freeway-7 [F-7], Highway/Arterial Improvements-2 [H-2], and Highway/Arterial Improvements-6 [H-6]), a rating system was developed to rank the alternatives based on the known environmental conditions encountered within each alignment.

Two 'Evaluation Criteria' were established to rate the alignments based on the various environmental conditions. Each of the evaluation criteria are defined by "Performance Measures," which are based on environmental factors such as extent of environmental impact and percentage of alignment area impacted by the environmental conditions (Table 1). These environmental conditions are identified based on limited preliminary data and are considered best estimates.

TABLE 1
Summary of Level 2 Evaluation Environmental Criteria and Performance Measures
SR 710 Gap Alternatives Analyses

Evaluation Criteria	Performance Measure
Contamination Impact Score	Potential for encountering large areas with environmental impacts during construction activities within an alignment based on limited preliminary environmental assessment
Area of Impact Score	Percentage of an alignment impacted by various facilities with environmental issues within or adjacent to the alignment as determined by the limited preliminary environmental assessment

Ranking

After completing the environmental records review, the facilities identified to have environmental impacts were separated into the following three categories:

1. Low Impact
2. Medium Impact
3. High Impact

This categorization was based on various environmental factors, such as impact to soil and (or) groundwater, distance from the alignment, depth to groundwater (when available), extent of impact, type of impact, and other miscellaneous factors. Based on number of facilities within each category, a ranking on a scale of 1 to 7 was provided for each of the categories within an alignment, with 1 being the worst case (higher environmental impact) and 7 being the best case (lower environmental impact).

In addition, the percentage of the alignment that has impacts based on preliminary qualitative assessment is determined and different rankings on a scale of 1 to 7 were provided for each percentage range, with 1 being the worst case (higher percentage of alignment with environmental impact) and 7 being the best case (lower percentage of alignment with environmental impact).

To determine a final environmental screening rating for each alignment, a weighted average (equal-weighted) of the two evaluation criteria was calculated on a scale of 1 to 7.

BRT-1

Environmental Impacts

For this alignment, 23 facilities were identified with environmental impacts from the records review, of which 10 are considered low, 9 medium, and 4 with high impacts. Of these 23 facilities, 11 have impacted groundwater, 4 have impacted soil/soil vapor, and 4 have impacted both soil and groundwater. No specific information regarding media of impact was available for four facilities in any of the databases reviewed for this screening.

BRT-6

Environmental Impacts

For this alignment, 11 facilities were identified with environmental impacts from the records review, of which 10 are considered low and 1 with medium impact. From the preliminary screening, none of the facilities within or adjacent to the alignment were identified to have high impacts. Of these 11 facilities, 9 have impacted groundwater, while 1 has impacted soil/soil vapor. No specific information regarding media of impact was available for one facility in any of the databases reviewed for this screening.

BRT-6a

Environmental Impacts

For this alignment, 11 facilities were identified with environmental impacts from the records review, of which 10 are considered low and 1 with medium impact. From the preliminary screening, none of the facilities within or adjacent to the alignment were identified to have high impacts. Of these 11 facilities, 9 facilities have impacted groundwater, while 1 has impacted soil/soil vapor. No specific information regarding media of impact was available for one facility in any of the databases reviewed for this screening.

LRT-4a

Environmental Impacts

For this alignment, 32 facilities were identified with environmental impacts from the records review, of which 25 are considered low, 6 medium, and 1 with high impact. Of these 32 facilities, 24 have impacted groundwater, 3 have impacted soil/soil vapor, and 3 have impacted both soil and groundwater. No specific information regarding media of impact was available for two facilities in any of the databases reviewed for this screening.

LRT-4b

Environmental Impacts

For this alignment, 9 facilities were identified with environmental impacts from the records review, of which 7 are considered low, one medium, and 1 with high impact. Of these 9 facilities, 8 have impacted groundwater and 1 has impacted soil/soil vapor.

LRT-4d

Environmental Impacts

For this alignment, 25 facilities were identified with environmental impacts from the records review, of which 13 are considered low, 6 medium, and 6 with high impact. Of these 25 facilities, 18 have impacted groundwater, 1 has impacted soil/soil vapor, and 5 have impacted soil and groundwater. No specific information regarding media of impact was available for one facility in any of the databases reviewed for this screening.

LRT-6

Environmental Impacts

For this alignment, 12 facilities were identified with environmental impacts from the records review, of which 8 are considered low, 2 medium, and 2 with high impact. Of these 32 facilities, 24 have impacted groundwater while 3 have impacted soil/soil vapor.

F-2

Environmental Impacts

For this alignment, 5 facilities were identified with environmental impacts from the records review, of which 3 are considered low and 2 with medium impact. From the preliminary screening, none of the facilities within or adjacent to the alignment were identified to have high impacts. Of these 5 facilities, 2 have impacted groundwater, 1 has impacted soil/soil vapor, and 1 has impacted both soil and groundwater.

F-5

Environmental Impacts

For this alignment, 1 facility that has impacted the soil could result in high environmental impact based on the records review.

F-6**Environmental Impacts**

For this alignment, 9 facilities were identified with environmental impacts from the records review, of which 2 are considered low, four medium, and 3 with high impact. Of these 9 facilities, 5 have impacted groundwater, 3 have impacted soil/soil vapor, and 1 has impacted both soil and groundwater.

F-7**Environmental Impacts**

For this alignment, 11 facilities were identified with environmental impacts from the records review, of which 3 are considered low, 5 medium, and 3 with high impact. Of these 11 facilities, 6 have impacted groundwater, 4 have impacted soil/soil vapor, and 1 has impacted both soil and groundwater.

H-2**Environmental Impacts**

For this alignment, 28 facilities were identified with environmental impacts from the records review, of which 20 are considered low, 3 medium, and 5 with high impact. Of these 28 facilities, 21 have impacted groundwater, 3 have impacted soil/soil vapor, and 3 have impacted both soil and groundwater. No specific information regarding media of impact was available for one facility in any of the databases reviewed for this screening.

H-6**Environmental Impacts**

For this alignment, 15 facilities were identified with environmental impacts from the records review, of which 8 are considered low, 4 medium, and 3 with high impact. Of these 15 facilities, 12 have impacted groundwater and 3 have impacted soil/soil vapor.

TSM/TDM

Detailed environmental screening was not performed for this alternative as the environmental impacts from these are assumed to be minimal.

Summary of Potential Environmental Impacts to Each Alternative

Table 2 provides the final ratings of each alternatives based on previously specified environmental criteria. A rating of 1 indicates that during construction activities along a specific alignment, large areas with significant environmental impacts may be encountered, while a ranking of 7 indicates that large areas with significant environmental impacts may not be encountered during construction activities. These ratings are, however, based on limited preliminary data and further detailed environmental evaluations should be conducted prior to selecting a specific alignment. These ratings, along with other ratings from different criteria such as geotechnical and traffic, will be used for calculating a final combined score. For No Build and TSM/TDM Alternatives, since environmental impacts could be minimal to none, these alternatives are given the highest rating of 7.

TABLE 2
 Summary of Level 2 Environmental Ratings
SR 710 Gap Alternatives Analyses

Alignment Alternatives	Overall Environmental Rating based on Level 2 Evaluation
No Build	7.0
TSM/TDM	7.0
BRT-1	3.0
BRT-6a	6.0
BRT-6	6.0
LRT-4a	3.0
LRT-4b	6.0
LRT-4d	3.0
LRT-6	6.0
F-2	7.0
F-5	7.0
F-6	7.0
F-7	5.0
H-2	3.0
H-6	5.0