

## PERSPECTIVES FROM THE FIELD

### A System to Screen Potentially Contaminated Sites Encountered by a County-wide Project

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The National Environmental Policy Act (NEPA) process includes the evaluation of several alternatives prior to the selection of a preferred alternative. This can pose a problem if the project is a county-wide project. Normally, a preliminary review of the anticipated issues is conducted for each alternative. The identification of hazardous waste and hazardous substance sites can be accomplished within a modest budget. However, once the data are collected, the evaluation can involve a considerable amount of time for the environmental professional to assess the potential impact of each site along the proposed alternatives.

Encountering hazardous waste and hazardous substance sites during the construction phase of a project can present hazards to construction personnel, significantly increase project costs, and delay completion of the project, not only because of the time involved to remediate the contamination but also to determine who is responsible for the cleanup.

Several years ago, an approach was developed for a major investment study (MIS) for the Orange County Transit Authority (OCTA) that addressed the environmental issues related to hazardous wastes and substances and provided an approach that evaluated the various alternatives within a reasonable time frame.

### Screening Methodology

Each of the alignment alternatives was screened for the presence of potential hazardous sources that might impact project construction. Potential hazardous sources for the OCTA MIS were defined as facilities regulated under the federal Resource Conservation and Recovery Act (RCRA), contaminated sites regulated under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), sites regulated by the California Environmental Protection Agency (CAL-EPA), California Waste Management Board, California Regional Water Resources Control Board, and the Orange County Department of Health.

The screening procedure, for all of the alignment alternatives except one, included the collection and review of databases compiled by the regulatory agencies that listed known hazardous waste treatment, storage, and disposal (TSD) facilities, hazardous waste generators, sites contaminated by hazardous substances, petroleum storage sites, and sites contaminated by petroleum products. The one alignment alternative that did not include a database review was situated in an area of rural agricultural land containing several oil fields. A windshield survey was conducted along this alignment and others to identify developed properties that might negatively impact the project.

The search radius for the databases was one-quarter mile on each side of each alternative. These are the databases reviewed for the alignment alternatives:

**CERCLIS:** the Comprehensive Environmental Response, Compensation, and Liability Information System lists sites investigated by the US Environmental Protection Agency (USEPA) as presenting potentially significant hazards to human health or the environment

**NPL:** the National priorities list, which includes sites investigated by the USEPA under CERCLA that present significant hazards to human health or the environment; these sites are included in the Superfund Program

**Liens:** NPL sites that have had filed notices of Superfund liens

**“Cortese”:** hazardous waste and substance sites listed by CAL-EPA, which include public drinking water wells with detectable levels of contamination, sites selected for remediation, sites with known toxic material, leaking underground storage tank (LUST) sites, and solid waste disposal facilities

**CAL sites/AWP:** contaminated sites listed by CAL-EPA for inclusion to the annual work plan and authorized for cleanup under the Bond Expenditure Plan

**BZP:** border-zone properties, which are sites designated by CAL-EPA that have deed restrictions

**CAL sites/ASPIS:** actually or potentially contaminated sites designated by CAL-EPA under the Abandoned Site Program Information System

**HWIS:** the Hazardous Waste Information System, which includes hazardous waste generators and treatment, storage, or disposal facilities

**SWIS:** the Solid Waste Information System, which includes active and inactive sanitary landfills, transfer stations, and waste disposal facilities

**LUST:** leaking underground storage tanks and other sites with reported releases of petroleum products

**UST:** underground storage tanks and other sites with reported storage facilities for hazardous substances

County data: landfills, waste disposal facilities, LUSTs, and contaminated sites listed by the County Department of Health

Sites identified through the databases were reviewed for their proximity to each alignment alternative. Sites located on or adjacent to the alignment, based on the database information, were identified since these sites present the most probable impact on the project. However, sites not directly adjacent to the alignment are also a concern. Consequently, the sites were designated based on their reported distances from the alignment. Sites that were between one-quarter mile and midway to the alignment (660 feet [201 m]) were designated as “Proximate” to the alignment. Sites located from 660 feet to the property adjacent to the alignment were designated as “Near” the proposed alignment. Sites that were directly adjacent to the alignment were designated as “Adjacent” to the alignment.

The identified sites were also reviewed in the field by a windshield survey to confirm the listed location and note the approximate distance from the proposed alignment. Site “housekeeping” and general condition of the property were noted to assess operational procedures there. Current land use and adjacent properties were also noted. Additional unlisted sites, such as abandoned or converted gasoline service stations, that may present a potential impact to the project were also identified during the windshield survey.

Once the sites that posed a potential concern to the project were identified and reviewed, they were categorized based on distance to the proposed alignment, whether the site would be acquired as part of the project, and the type of listing that placed the site in the databases. Five levels of potential impact were identified to categorize the potential hazardous sources. Level 1 sites presented the highest potential to impact the project, whereas level 5 sites presented the least potential:

*Level 1 sites* included all partial or full acquisition sites. Sites such as landfills, NPL sites, and sites with known or suspected contamination that are considered adjacent to the proposed alignment were included.

*Level 2 sites* included those with known or suspected contamination that are considered near the proposed alignment, sites that are listed as hazardous waste large-quantity generators (LQGs) and TSD facilities under RCRA that are adjacent to the proposed alignment, and CERCLA and UST sites that are adjacent to the proposed alignment.

*Level 3 sites* are those with known or suspected contamination that are considered proximate to the proposed alignment; CERCLA, LQG, and UST sites that are near the proposed alignment; and RCRA hazardous waste small-quantity generators (SQGs) and conditionally exempt SQG (CESQG) sites that are adjacent to the proposed alignment.

*Level 4 sites* included SQG and CESQG sites near the alignment and CERCLA, RCRA LQG, and UST proximate to the alignment.

*Level 5 sites* were SQG and CESQG sites proximate to the alignment.

These categories did not necessarily imply that a site was contaminated, nor did they indicate the severity of conditions reported. The levels only grouped sites with similar characteristics or environmental concerns and categorized the potential impact to the project. More detailed site-specific data are required to fully assess the potential impact to the project. The categories provided only a means of comparing known conditions along the alignment alternatives.

## Results of the Study

The data were compiled in a matrix to present the number of potential hazardous waste and substance sources that were identified in each proposed project alignment. The number of potential impacts within each alignment was segregated into the five potential impact levels. The Los Angeles (LA) alignment had the greatest number of hazardous sources because of the high concentration of commercial and industrial businesses along the alignment. Whether the alignment was elevated or at grade did not lessen the potential impact from the potential hazardous sources iden-

tified. The data collected for the study identified only potential hazardous sources.

Since the conventional grade alternative only proposed a change in the excavation grade, the identification of potential impacts was not altered for the screening-level analysis. The conventional grade alternative included only surface construction with no elevated sections along the alignment. In addition, the reduced horizontal curvature alternative reduced alignment curvature radii. The curvature reductions did not significantly alter the location of the alignment within the one-quarter mile study boundary.

## Critical Issues Identified

Of the potential hazardous waste and substance sites identified, the NPL sites were considered to present the greatest probability of impact. The LA alignment contained three NPL sites: the Pollock Well field, the Crystal Springs Well field, and the North Hollywood Well field. All three sites extended to the width of the study area (one-half mile). All three NPL sites reportedly were listed on the NPL because of significant groundwater contamination. Any excavation considered along the alignment would need to include potential impacts presented by the contamination.

There were two well fields identified during the windshield survey of the Bakersfield Bypass alignment. The probable impacts by the presence of the well fields was considered significant since other well fields in the county were listed in the NPL and were considered a significant impact to the project.

## Study Conclusions

All of the proposed alignments had potential hazardous waste and substance sources that could impact project construction. The severity of a potential impact could not be quantified from the data collected, but alignment alternatives with the most significant potential impacts could be eliminated from further consideration. Those sites that were currently under a cleanup action could have their category revised since the property would be remediated before project con-

struction. If a significant number of sites were being remediated, an alternative could remain under consideration.

The study also identified those sites along the preferred alignment that would need further evaluation. Further evaluation was necessary to assess the nature and extent of contamination and level of cleanup being performed at that time. A more detailed environmental site assessment (ESA) would

be required for the preferred alignment alternative.

Studies involving areas with high-density development are difficult to assess, which lessens the value of this type method. However, in areas where high-density development is not a major factor, this method of alternative analysis can provide a more complete picture of conditions along the alternative alignments being considered.

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