

## **APPENDIX K HAZARDOUS MATERIALS SPILL SITES AND HAZARDOUS WASTE SITES**

SEA assessed the potential environmental impacts resulting from disturbances to hazardous materials spill sites and hazardous waste sites that may occur as a result of construction activities associated with the Proposed Action and Alternatives.

### **K.1 OVERVIEW**

SEA evaluated the potential effects of the Build Alternatives on hazardous materials spill sites and hazardous waste sites. The American Society of Testing Materials (ASTM) Standard No. E-1527-00, Phase I Environmental Site Assessment (the ASTM standard), served as the basis for SEA's evaluation methods, adapted, as appropriate, for the purposes of the EIS. Section 2 of this appendix references the applicable regulations and guidance. Section 3 describes the data gathering process, including the methods used. Section 4 describes the relevant existing conditions in the area where the Build Alternatives are to be implemented. Section 5 describes the potential environmental impacts identified by SEA.

### **K.2 APPLICABLE REGULATIONS AND GUIDANCE**

SEA evaluated the potential effects to hazardous materials spill sites and hazardous waste sites in accordance with regulations established by the Board, USEPA, state agencies, and local emergency planning committees. The applicable regulations include the following:

- The Board's regulations at 49 CFR 1105.7(e)(7), which require the identification of the location of "any known hazardous waste site or sites where there have been known hazardous materials spills on the right-of-way." The Board's regulations also require the identification of the types of hazardous materials involved.
- The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and CERCLA regulations at 40 CFR Part 300, which establish an information system known as CERCLIS. CERCLIS contains data on potentially hazardous waste sites that states, municipalities, private companies, and individuals have reported to USEPA. USEPA investigates these sites for placement on the National Priorities List (NPL) for priority remediation under Superfund (40 CFR 300.425).
- The Resource Conservation and Recovery Act of 1976 (RCRA) and RCRA regulations at 40 CFR Part 264, which require USEPA to identify and list facilities that generate, transport, store, treat, or dispose of hazardous waste and establish an information system known as RCRIS that contains data on such facilities, including instances when a facility has violated RCRA regulations.
- Other relevant Federal, state, and local regulations and guidance that establish information systems that can be searched to obtain environmental management data related to the location

and nature of hazardous materials spill sites, hazardous waste sites, reported releases, and other pollution incidents.

### **K.3 DATA GATHERING PROCESS**

#### **K.3.1 Data Sources**

SEA used a variety of data sources to identify the location of hazardous materials spill sites, hazardous waste sites, reported releases, and other pollution incidents. The sources included reports from searches of environmental regulatory agency databases, permits, and site specific records, as appropriate; USGS topographic maps; recent and historical aerial photographs; interviews with regulatory agency representatives; and site visits. SEA obtained information from these sources to assess potential environmental impacts from hazardous materials spill sites and hazardous wastes sites, including the following:

- Characteristics of the different portions of the Build Alternatives and surrounding areas.
- Characteristics of surface water bodies in the area surrounding the Build Alternatives.
- Apparent flow direction of groundwater in the area.
- Sensitive human and ecological receptors (e.g., schools, hospitals, wetlands, lakes, streams).
- Location of above ground storage tank farms.
- Historical land use.
- Environmental reporting and regulatory compliance of industrial and commercial facilities, as well as rail lines, in the area.
- Other relevant existing site conditions in the area where the Build Alternatives would be implemented.

SEA's search for information focused on the properties that lie within 500 feet of the right-of-way of the Build Alternatives.

#### **K.3.2 Environmental Regulatory Agency Database Searches**

SEA reviewed data from 22 Federal and 11 state databases maintained by the Federal Railroad Administration (FRA) and environmental regulatory agencies to determine whether any hazardous material spills have occurred within 500 feet of the Build Alternatives. The results were obtained from searches of the following Federal databases:

- CERCLIS. CERCLIS contains data on potentially hazardous waste sites that states, municipalities, private companies, and individuals have reported to USEPA, pursuant to Section 103 of CERCLA. CERCLIS includes sites that USEPA has placed on the NPL and sites that EPA has studied for possible inclusion on the NPL.
- National Priorities List (NPL). The NPL, a subset of CERCLIS, identifies more than 1,200 sites for priority cleanup under the Superfund program.

- No Further Remedial Action Planned (NFRAP). NFRAP is an USEPA database containing sites deleted from CERCLIS because USEPA planned no further remedial action. NFRAP lists sites (1) with no detected contamination, (2) where prompt removal of contamination nullifies the need for the site's listing on the NPL, or (3) where the contamination is not serious enough to require Superfund action or NPL consideration.
- Corrective Action Report (CORRACTS). CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.
- Resource Conservation and Recovery Information System (RCRIS). RCRIS includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste, as defined by RCRA.
- Emergency Response Notification System (ERNS). ERNS records and stores information on reported releases of oil and hazardous substances.
- Records of Decision (ROD). ROD documents describe a permanent remedy at an NPL site and contain technical and health information to aid in the cleanup.
- National Priority List Deletions (Delisted NPL). The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the USEPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL when no further response is appropriate.
- Facility Index System/Facility Initiative Program Summary Report (FINDS). FINDS contains both facility information and 'pointers' to other sources that contain more detail. The following FINDS databases are included in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).
- Hazardous Materials Information Reporting System (HMIRS). HMIRS includes hazardous materials spill incidents reported to the USDOT. Specifically, HMIRS includes information provided by the railroads regarding any unintentional release of hazardous materials that meets the criteria set forth in 49 CFR 171.16.
- PCB Activity Database System (PADS). PADS identifies generators, transporters, commercial storers and/or brokers and disposers of PCBs who are required to notify the USEPA of such activities.
- RCRA Administrative Action Tracking System (RAATS). RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the USEPA. For administration actions after

September 30, 1995, data entry in the RAATS database was discontinued. USEPA will retain a copy of the database for historical records. The information contained in the database is not being updated.

- Toxic Chemical Release Inventory System (TRIS). TRIS identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 313.
- Toxic Substances Control Act (TSCA). TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.
- FIFRA/TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) (FTTS). FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act).
- National Radon Database. This database includes residential radon data from a study USEPA conducted from 1986 to 1992.
- U.S. Geological Survey (USGS) Water Wells. This USGS database contains descriptive information on sites where USGS collects (or has collected) data on surface or groundwater.
- Oil, gas pipeline, and electrical transmission line data. Extracted from 1994 USGS 1:100,000 scale maps.
- 100- and 500-year flood zone data. Data from the Federal Emergency Management Agency (FEMA).
- World earthquake epicenters (of Richter Scale 5 or greater). Data from the Department of Commerce, National Oceanic and Atmospheric Administration.
- Sensitive Receptors. Pinpoints locations of sensitive human receptors (including schools, hospitals, day care centers, and nursing homes) from USGS topographic maps and visual surveys during field visits.
- Orphan/Unmappable Sites. This database contains any sites for which the Federal databases did not provide information sufficient to map the location.

SEA also reviewed results of searches that included the following state databases:

- Leaking Underground Storage Tanks (LUSTs). State records of reported leaking USTs.
- Solid Waste Facilities and Landfill Sites (SWF/LF). State records of solid waste disposal facilities and landfills. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA criteria for solid waste landfills or disposal sites.

- Closed Landfill Inventory (CLI). Closed and abandoned landfills (permitted as well as unauthorized) across the state of Texas.
- State Hazardous Waste Sites (SHWS). State CERCLIS-equivalent lists containing priority sites planned for cleanup using that state's funds and sites where potentially responsible parties will pay for the cleanup.
- Underground Storage Tanks (USTs). Lists USTs registered with states and regulated under Subtitle I of RCRA.
- Petroleum Storage Tank Database (AST). Lists registered aboveground storage tanks.
- Spills Database (SPILLS). Data from Texas Commission on Environmental Quality (TCEQ).
- Industrial and Hazardous Waste Database (Ind. Haz Waste). Summary reports reported by waste handlers, generators, and shippers in Texas.
- Commercial Hazardous and Solid Waste Management Facilities (WASTEMGT). Commercial recycling facilities and facilities permitted or authorized (interim status) by the TCEQ.
- Current Emission Inventory Data (AIRS). Lists by company the TCEQ air accounts that emit EPA criteria pollutants, along with their actual emissions.
- State and/or County Well Data. Data obtained from states and/or counties on public, industrial, and private water wells. Data on gas and oil wells, if relevant.

SEA reviewed and summarized the database search reports (see Tables K-1 and K-2) to identify known hazardous materials spill sites, hazardous waste sites, or related environmental concerns within 500 feet of the right-of-way of the Build Alternatives. SEA attempted to locate orphan/unmappable sites using available mapping or based on information obtained during the site reconnaissance.

### **K.3.3 Interviews with Regulatory Agencies**

SEA conducted interviews with environmental regulatory agency representatives of relevant state and local agencies with jurisdiction over the area of the Build Alternatives, as appropriate, to obtain relevant information for properties and/or sites located within 500 feet of the Build Alternatives. The objective of these interviews was to verify, complement, and update information obtained through the database search process.

### **K.3.4 Site Reconnaissance**

SEA conducted a site reconnaissance to visually survey the right-of-way for the Build Alternatives and the surrounding properties, where accessible, and to determine if evidence could be observed of hazardous materials spill sites and hazardous waste dumping along and within

500 feet of the Build Alternatives. SEA did not collect samples of any environmental media during the site reconnaissance. The site reconnaissance was coordinated with the Applicants in order to facilitate access to the properties associated with the right-of-way of the Build Alternatives. During the reconnaissance, SEA documented and/or photographed any signs of potential hazardous materials spills such as soil staining, stressed vegetation, and the presence of ASTs, USTs, and hazardous waste storage or dumping areas.

#### **K.4 EXISTING CONDITIONS OF THE AFFECTED ENVIRONMENT**

SEA reviewed the results of multiple environmental regulatory agency database searches to identify existing hazardous materials spill sites and hazardous waste sites that could potentially be affected as a result of construction activities for the Build Alternatives. The area for the database searches extended at least 500 feet from the Build Alternatives and the full length of the alternatives considered. During the site reconnaissance, where accessible, SEA observed the environmental conditions in the vicinity of sites of interest.

##### **K.4.1 Findings Based on Review of Regulatory Database Searches**

###### Proposed Action and Alternative 1C

Table K-1 presents a summary of the results of the database searches and Agency contacts for the relevant facilities located within 500 feet of the Proposed Action and Alternative 1C. Based on the results of the database searches, there are no facilities of concern located within 500 feet of these routes west of Red Bluff Road, which is an area of primarily unimproved land with limited industrial or commercial activity. The results of the database searches indicate that numerous facilities listed in environmental regulatory databases are located within 500 feet of the Proposed Action and Alternative 1C east of Red Bluff Road, primarily in the Bayport Loop area. As indicated in Table K-1, some facilities were listed in one or more databases. These listings include, but are not limited to, USTs, ASTs, generation and management of hazardous wastes, emergency response actions, and no-further-action determinations related to contamination of soil, surface water, and/or groundwater.

Based on a review of the database searches and on interviews with TCEQ representatives, SEA established that the majority of recorded cases of hazardous materials spills sites and hazardous waste sites located within 500 feet of the Proposed Action and Alternative 1C have been closed or are deemed by the responsible regulatory agency not to merit further action. Four recorded cases of hazardous materials spills, associated with two different facilities, either have not been declared closed or have not had a no-further-action determination recorded for them by the responsible regulatory agency.

A site at 12901 Bay Park Road (see Table K-1) is an open case related to a release of hazardous materials onto land. The hazardous materials release took place in November 2000, when an unknown amount of wastewater spilled from a pipeline. Clean-up for the spill is underway, and the responsible party is performing the clean-up itself.

A site at 12211 Port Road (see Table K-1) has three open or undefined cases related to releases of hazardous materials into waterbodies. The hazardous materials releases took place in January 1992, May 1996, and December 1999. The 1992 case involved a release of approximately 5 gallons of water with oil and acetate into Bayport Channel. The 1996 case involved a release of an unreported amount of hydraulic fluid into Bayport Turning Basin. The 1999 case involved a release of 3 gallons of acrylonitrile into the Bayport Turning Basin. These three cases were classified as minor by TCEQ.

### Alternatives 2B and 2D

Table K-2 presents a summary of the results of the database searches for the relevant facilities located within 500 feet of Alternatives 2B and 2D. Table K-2 presents sites located west of the intersection of the alignment for Alternatives 2B and 2D and Red Bluff Road; sites east of this intersection are the same as the sites listed in Table K-1 for the Proposed Action and Alternative 1C and are therefore relevant for Alternatives 2B and 2D. The results of the database searches indicate that numerous facilities listed in environmental regulatory databases are located within 500 feet of Alternatives 2B and 2D. As indicated in Table K-2, some facilities were listed in one or more databases. These listings include, but are not limited to, USTs, ASTs, generation and management of hazardous wastes, emergency response actions, permitted solid waste facilities, and no-further-action determinations related to contamination of soil, surface water, and/or groundwater.

Based on a review of the database searches and on interviews with TCEQ representatives, SEA established that the majority of recorded cases of hazardous materials spills sites and hazardous waste sites located within 500 feet of Alternatives 2B and 2D have been closed or deemed by the responsible regulatory agency (USEPA or TCEQ) not to merit further action. One site, located within 500 feet of Alignment 2D and identified as the Harris (Farley Street) site, was recorded as a delisted NPL site (see Table K-2). Based on information from the USEPA Superfund NPL Assessment Program database, the source of contamination was removed and disposed of properly, and no further operational or institutional controls were deemed necessary to ensure future integrity of the cleanup.<sup>1</sup> USEPA, in consultation with the State of Texas, determined that all appropriate response action required was completed, and the site was deleted from the NPL in 1991. The property has been incorporated as part of an adjacent nonhazardous materials landfill, and a sandpit to the south of the site also became a landfill after usable sand was removed.

Table K-3 presents a summary of the information obtained from the Applicants, environmental regulatory agency databases, and interviews with TCEQ officials about the landfills located or potentially located within 500 feet of Alternatives 2B and 2D. SEA did not have access to precise information regarding the exact boundaries of the landfills in the area. In light of this fact and because the boundaries of the landfills is believed to have changed over the years, at least in some cases, SEA has included several landfills located in the vicinity of Alternatives 2B and 2D in its analysis, even though based on the information available (i.e., latitude and longitude associated with a facility's street address), the facility would appear to be located more than

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<sup>1</sup> NPL Site Narrative at Listing, Harris (Farley Street) Site, Houston, Texas. USEPA Superfund Program. <http://www.epa.gov/superfund/sites/npl/nar779.htm>. Accessed: 5/17/2002.

500 feet away from the Build Alternatives. All of the landfills, except as noted in Table K-3, are classified by TCEQ, Municipal Solid Waste Section, as sanitary landfills for brush and/or construction-demolition material for which monthly cover is required.

SEA reviewed information from the Applicant for the Hughes Landfill, a closed Type IV landfill located southwest of the intersection of Genoa Red Bluff Road and Farley Road, identified in Table K-3 as Hughes Sand Pits, Inc. (Permit Number 150). An investigation was performed in June 2002<sup>2</sup> to obtain information about subsurface conditions along the Harris County Flood Control District (HCFCD) drainage channel that intersects the Hughes Landfill. Alternative 2D would run parallel to the north side of the drainage channel. The investigation included 35 soil borings along the north and south side of the HCFCD drainage channel embankment and along a portion of the landfill slopes immediately adjacent to the HCFCD drainage channel.

The subsurface conditions near Alternative 2D generally consisted of sandy clay fill over construction and demolition debris, sandy clay, and clay. The average depth to water was approximately 8 feet below ground surface. The construction and demolition debris on either side of the drainage channel was typically 21 to 22 feet thick, with a maximum depth of 24 feet below the existing ground surface. Debris consists of wood, plastic, concrete/gravel, asphalt, brick, metal, cloth, rubber, foam, paper, carpet, electric cable and roofing material. Borings from the slopes of the landfill on both sides of the drainage channel indicate the landfill cap ranges from approximately 2 to 5 feet thick, consisting of silty to sandy clay. The debris is underlain by a layer of clay of unknown thickness. The entire thickness was not penetrated during the investigation to maintain the integrity of the layer.

The waste debris appears to be consistent with Type IV construction wastes based on the subsurface conditions encountered. The North Landfill (north of drainage channel) appears to contain a greater volume of construction waste debris than the South Landfill (south of drainage channel), based on soil borings. Organic vapor analyzer (OVM) readings (from photoionization detection (PID) readings) were generally detected at all borings, though considered low (<100 ppm). Elevated levels of Hydrogen Sulfide (H<sub>2</sub>S) (>100 ppm) were found around two borings in an isolated area near the north side of the easement. The TCEQ Texas Risk Reduction Program (TRRP) Tier 1 Commercial/Industrial Soil Protective Concentration Levels (PCL) were used as the basis for comparison with the analytical results. Three samples, from the borings located near the isolated area where elevated H<sub>2</sub>S levels were detected, had detectable benzo(a)pyrene above TRRP-PCLs. Analytical results for all other cases were below TRRP-PCLs for RCRA metals, TPH, VOC and SVOC.

#### **K.4.2 Findings Based on Site Reconnaissance**

SEA observed a diesel fuel AST associated with the generator of a navigational aid unit at Ellington Field located approximately 200 feet northeast of the turn-out for the Proposed Action. The AST has a secondary containment system. SEA did not observe any evidence of leaks or spills in or around the secondary containment system.

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<sup>2</sup> SSCi Environmental and Consulting Services, Site Investigation Report - Hughes Landfill/Harris County Flood Control District Easement, June 4, 2002.

A waste water treatment plant is located adjacent to the southeastern corner of Ellington Field and east of the Proposed Action and west of Alternative 1C. The facility is enclosed by a fence and a gated entrance. SEA observed limited amounts of concrete and other construction debris along the outside of the fence. SEA did not observe any evidence of improper disposal of hazardous waste or hazardous materials spills near the plant.

SEA observed a site where solid waste dumping has occurred along an access road in the northwestern portion of the Tejas Oil and Gas fields. The waste included concrete, wood, and other non-hazardous debris. SEA did not observe any evidence of improper disposal of hazardous waste or hazardous materials spills at the site.

SEA found an apparently abandoned AST lying on the ground along an access road in the northeastern portion of the Tejas Oil and Gas fields. The tank walls were damaged. SEA did not observe any evidence of stains, leaks, odors, or distressed vegetation in the vicinity of the tank.

During the site reconnaissance, SEA observed a small active excavation site at an elevated pipeline crossing on the western side of the drainage channel and pipeline corridor that run north-south and parallel to the Proposed Action in the Bayport Loop area. The excavation site was approximately 10 feet by 15 feet and was located approximately 0.75 miles to the northwest from the intersection of Choate Road and Bay Area Boulevard. The excavation was at the point where the pipelines from the elevated crossing entered the ground. SEA observed a water tank and a sand pile next to the excavation. The excavation site was delineated with stakes and tape. SEA did not observe stressed vegetation or detect chemical odors in the vicinity of the excavation, nor did SEA observe any remarkable soil staining inside the excavation. SEA contacted Harris County and TCEQ regarding this excavation site but no further information was available. Based on SEA observations of the site, SEA has no basis to conclude that this active excavation site is associated with a hazardous materials spill site or a hazardous waste site.

At the time that SEA conducted site reconnaissance activities for Alignment 2 Modifications, access was not available to the landfill sites or to the City of Houston Southeast Water Treatment Plant located along Genoa-Red Bluff Road. SEA was able to observe a portion of Alternatives 2B and 2D along the Sam Houston Parkway and along Genoa-Red Bluff Road. SEA observed two sites off the Sam Houston Parkway that showed evidence of dumping of wood debris and other solid waste. One of the sites was located near the intersection with Genoa-Red Bluff Road and the other was located near a solid waste landfill located in the southeast corner of the intersection of Sam Houston Parkway and Genoa Red Bluff Road. SEA did not observe any evidence of improper disposal of hazardous waste or hazardous materials spills at either site.

SEA did not identify visual evidence of improper disposal of hazardous waste or hazardous materials spills along the Build Alternatives during the site reconnaissance.

#### **K.4.3 Findings Based on Review of Aerial Photographs**

SEA reviewed a recent set of aerial photographs (scale of 1": 400', dated October 2001; HDR Engineering) that showed the area of the Build Alternatives. SEA confirmed observations made during the site reconnaissance for the locations of the following sites: the AST at Ellington Field;

the solid waste dump site and abandoned storage tank observed on Tejas Oil and Gas fields; and the small active excavation site next at the elevated pipeline crossing adjacent to the drainage channel in the Bayport Loop area. SEA did not observe any evidence in these aerial photographs that would suggest improper disposal of hazardous waste or hazardous materials spills. SEA also reviewed historical aerial photographs from 1953, 1964, 1973, and 1979 that covered the area of the Build Alternatives. The historical aerial photographs reviewed had a scale of 1": 3000' or smaller. Due to the scale on these historical aerial photographs, it was not possible for SEA to ascertain the location or existence of hazardous waste dump sites or hazardous material spill sites along the Build Alternatives.

## **K.5 IMPACT ASSESSMENT**

### **K.5.1 Data Analysis Methods and Area of Influence Considered**

SEA based its assessment on the assumption that any construction activity associated with the Build Alternatives potentially could disturb any hazardous materials spill sites and hazardous waste sites that are within 500 feet of the right-of-way. SEA considers that a corridor evaluation focusing on the area located within 500 feet of the right-of-way is adequate and that neither construction activities nor railroad operations are likely to disturb sites located more than 500 feet from the rail line.

### **K.5.2 Criteria of Significance**

SEA considers the effects of construction activities to be significant at hazardous materials spill sites and hazardous waste sites if one of the following conditions would occur:

- The construction activities, or site remediation, would disturb hazardous material or hazardous waste sites such that uncontrolled releases of contaminants to the environment create a potential threat to human health or the environment. Or,
- The construction activities would disturb sites where other parties had contained contaminants in place to reduce the possibility of threats to human health or the environment (e.g., covered contaminants with a clay, soil, or asphalt cap).

### **K.5.3 Identification of Potential Impacts**

SEA reviewed and documented information obtained from environmental regulatory agency databases, state and local agencies, interviews with environmental regulatory agencies, and site reconnaissance to identify sites containing hazardous wastes or materials located within 500 feet of the Build Alternatives that could be affected by construction activities. As discussed above, SEA identified numerous facilities listed in environmental regulatory databases located within 500 feet of the Build Alternatives, particularly in the Bayport Loop area.

The available information reviewed by SEA indicates that the majority of recorded cases of hazardous materials spills sites and hazardous waste sites located within 500 feet of the Build Alternatives have been closed or deemed by the responsible regulatory agency not to merit

further action. Regarding the four open or undefined cases related to releases of hazardous materials associated with two sites, located at 12901 Bay Park Road and 12211 Port Road, based on the available information reviewed, and in particular based on the nature and scale of these recorded releases, SEA has concluded that the risk, if any, that the hazardous materials spill sites associated with these cases may potentially be disturbed by the Build Alternatives is insignificant.

SEA determined that the delisted NPL site located within 500 feet of Alternative 2D does not pose an environmental risk to construction activities. Based on the information reviewed about the landfills located near Alternatives 2B and 2D, SEA did not identify any potential significant impacts on the proposed alternative, with the exception of the Hughes Landfill discussed below. SEA did not document any evidence of hazardous waste disposal in any of the landfills, with the exception of the delisted NPL site noted above.

Based on the analytical results from the Hughes Landfill investigation, SEA has determined that no significant impacts would result from the excavation and relocation of construction and demolition debris associated with the construction of the proposed Alternative 2D, given that the proper procedures, as discussed below, are followed if undocumented hazardous materials are disturbed. Any excavated material removed as a result of the implementation of the Build Alternatives would be handled in accordance with USEPA and TCEQ regulations and relocated to an approved disposal facility. SEA recognizes there may be some materials present in the landfill that were not identified during the investigation (i.e., asbestos containing materials, tires, appliances, etc.) which may require special handling. Overall, OVM and hydrogen sulfide readings were relatively low (<100 ppm), with the exception of the two borings discussed in Section K.4.1. These borings were in an isolated area near the north side of the easement and exhibited high hydrogen sulfide levels (>100 ppm) and benzo(a)pyrene concentrations approximately twice the TRRP-PCL, which may indicate the debris is not consistent with construction and demolition material. The disturbance of any such materials, if they exist, could potentially create a threat to human health, particularly to the health of construction workers, or the environment. However, SEA does not consider this threat to be particularly significant when the procedures, discussed below, are implemented.

Based on the fact that numerous facilities located within 500 feet of the Build Alternatives, particularly in the Bayport Loop area, manage hazardous materials and hazardous wastes stored in USTs, ASTs, or drums, and that potentially some releases of such substances to the environment may not be properly documented and reported, SEA has concluded that the potential exists for construction activities associated with the Build Alternatives to disturb hazardous materials spill sites and/or hazardous waste sites. The disturbance of such sites, if they exist, could potentially create a threat to human health, particularly the health of construction workers, or the environment. SEA has concluded, however, that compliance with USEPA and TCEQ requirements would adequately address this situation.

**Table K-1**  
**Summary of Findings Regarding Hazardous Materials/Waste Sites for Proposed Action and Alternative 1C from Environmental Regulatory Agency Database Searches and Interviews with Agency Representatives**

Facility name	Address	Databases	Comments
Equistar	5761 Underwood Road Pasadena, TX 77507	ERNS	
Engelhard Corp.	10001 Chemical Road Pasadena, TX 77507	TX Spills Ind Haz Waste	<ul style="list-style-type: none"> <li>• May 1998; 155 gallons of process wastewater spilled; Media Affected: Land and Water; Classification: other pollutant; Adequate Clean: yes</li> </ul>
Southwest Latex Company	10001 Chemical Road Pasadena, TX 77507	Ind. Haz Waste	
Catalyst Resources	10001 Chemical Road Pasadena, TX 77507	FINDS RCRIS-LQG TRIS CORRACTS UST FTTS	<ul style="list-style-type: none"> <li>• 1 UST permanently filled in place (contains titanium chloride)</li> </ul>
Bayport PLT.	10001 Chemical Road Pasadena, TX 77507	AIRS	
10001 Chemical Road	10001 Chemical Road Pasadena, TX 77507	ERNS	
Mallinckrodt Chemical Inc - Catalyst Resources	10001 Chemical Road Pasadena, TX 77507	TSCA	
Praxair Distribution Incorporated	9950 Chemical Road Pasadena, TX 77507	FINDS	
Liquid Carbonic Ind/Med	9950 Chemical Road Pasadena, TX 77507	LUST UST	<ul style="list-style-type: none"> <li>• LUST reported May 1995; groundwater impacted, no apparent threats or impacts to receptors; final concurrence issued, case closed</li> <li>• 2 USTs containing diesel removed from ground</li> </ul>

Table K-1 (continued)

Facility name	Address	Databases	Comments
Aeriform Corporation	9950 Chemical Road Pasadena, TX 77507	RCRIS-SQG FINDS Ind. Haz Waste	
Liquid Transport Corp	9938-A Chemical Road Pasadena, TX 77507	RCRIS-SQG FINDS	
Custom Containers of America- Houston D	9938-B Chemical Road Pasadena, TX 77507	Ind Haz Waste	
Hoyer	9938 Chemical Road Pasadena, TX 77507	RCRIS-SQG FINDS Ind. Haz Waste AIRS FTTS	
Liquid Transport Corp	9938 Chemical Road Pasadena, TX 77507	Ind Haz Waste	
C-CAM	9938-B Chemical Road Pasadena, TX 77507	RCRIS-SQG FINDS	
Bayport Plant	12901 Bay Park Road Pasadena, TX 77507	AST UST	<ul style="list-style-type: none"> <li>• 1 diesel AST in-use</li> <li>• 1 UST removed from ground</li> </ul>
Bayport Facility	12901 Bay Park Road Pasadena, TX 77507	Ind Haz Waste	
Quaker Oats Co- Chemical Division	12901 Bay Park Road Pasadena, TX 77507	RCRIS-SQG FINDS RCRIS-TSD CORRACTS CERC-NFRAP	

Table K-1 (continued)

Facility name	Address	Databases	Comments
Southern Ionics	12901 Bay Park Road Pasadena, TX 77507	TX Spills Ind Haz Waste AIRS	<ul style="list-style-type: none"> <li>November 2000; waste water spill from pipeline; Affected Media: Land; Classification: other pollutant; Adequate Clean: no</li> </ul> <p>NOTE: Information obtained by SEA from TNRCC 6/2002: Clean-up is underway by Southern Ionics. Based on the available information reviewed, SEA deemed that the risk, if any, that the hazardous materials spill sites associated with this case may potentially be disturbed by the Proposed Action is insignificant.</p>
Houston Chemical Services	12901 Bay Park Road Pasadena, TX 77507	WasteMgt Ind Haz Waste	
12222 Port Road	12222 Port Road Pasadena, TX 77503	ERNS	
Huntsman- Bayport	12222 Port Road Pasadena, TX 77507	TX Spills	<ul style="list-style-type: none"> <li>January 1998; 10-20 lbs benzene released from fixed site (inland); Media Affected: Air and Land; Classification: SARA Title III; Adequate Clean: no</li> </ul> <p>NOTE: Information obtained by SEA from TNRCC 12/2001: Clean-up complete; soil was excavated and sent off site for disposal; valve was replaced; soil samples tested non-detect for benzene.</p>
12221 Port Road	12221 Port Road Pasadena, TX 77503	ERNS	
12221 Port Road No. 1 Ship Dock	12221 Port Road No. 1 Ship Dock Pasadena, TX 77503	ERNS	
12212 Port Road	12212 Port Road Pasadena, TX 77258	ERNS	
Atofina	12212 Port Road Pasadena, TX 77258	TX Spills	<ul style="list-style-type: none"> <li>July 2001; unknown amount of hexane released during equipment failure from fixed site (inland); Media Affected: Air; Classification: minor; Adequate Clean: yes</li> </ul>
12211 Port Road	12211 Port Road Seabrook, TX 77586	ERNS	

**Table K-1 (continued)**

<b>Facility name</b>	<b>Address</b>	<b>Databases</b>	<b>Comments</b>
Inspectorate America Corp.	12211-A Port Road Seabrook, TX	Ind Haz Waste	
Baytank Houston, Inc	12211 Port Road Seabrook, TX 77586	AST	<ul style="list-style-type: none"> <li>• 3 distilled fuel oil ASTs in-use, contained by earthen dike</li> </ul>
12211 Port Road No. 1 Barge Dock	12211 Port Road No. 1 Barge Dock Seabrook, TX 77586	ERNS	
12211 Port Road No. 2 Barge Dock	12211 Port Road No. 2 Barge Dock Seabrook, TX 77586	ERNS	
ODFJELL Tankers	12211 Port Road M/V Bow Pioneer Seabrook, TX 77586	TX Spills Ind Haz Waste	<ul style="list-style-type: none"> <li>• August 1998; 10 gal. Butyl acetate spilled; Media Affected: Water; Classification: minor; Adequate Clean: yes</li> </ul>
Pate Tankering	12211 Port. Road Seabrook, TX 77586	TX Spills	<ul style="list-style-type: none"> <li>• December 1999; 3 gal. acrylonitrile spilled from marine vessel into Bayport Turning Basin; Media Affected: Land and Water; Classification: minor; Amount in water: 1 gallon; Adequate Clean: undefined</li> </ul> <p>NOTE: based on the available information reviewed, and in particular based on the nature and scale of this release, SEA deemed that the risk, if any, that the hazardous materials spill sites associated with this case may potentially be disturbed by the Proposed Action is insignificant</p>

Table K-1 (continued)

Facility name	Address	Databases	Comments
Baytank	12211 Port. Road, at dock Seabrook, TX 77580	TX Spills AIRS	<ul style="list-style-type: none"> <li>December 1997; 50 gal. tetrachloroethylene spilled from fixed site (inland) due to human error; 30 gal. released into Bayport Turning Basin; Media Affected: Water; Classification: minor; Adequate Clean: undefined</li> <li>NOTE: Information obtained by SEA from TCEQ 12/2001: no clean-up necessary; case was closed.</li> <li>June 1991; 30 gal. sulfuric acid spilled from fixed site (inland) due to corrosion; Classification: minor; Adequate Clean: yes</li> <li>January 1992; 5 gal. water with oil and acetate spilled from fixed site (inland) due to equipment failure; Classification: minor; Adequate Clean: no</li> <li>NOTE: based on the available information reviewed, and in particular based on the nature and scale of this release, SEA deemed that the risk, if any, that the hazardous materials spill sites associated with this case may potentially be disturbed by the Proposed Action is insignificant</li> <li>May 1996; unknown amount of hydraulic fluid spilled from pipeline due to equipment failure into Bayport Turning Basin; Media Affected: water; Classification: minor; Adequate Clean: undefined</li> <li>NOTE: based on the available information reviewed, and in particular based on the nature and scale of this release, SEA deemed that the risk, if any, that the hazardous materials spill sites associated with this case may potentially be disturbed by the Proposed Action is insignificant</li> <li>November 1991; less than 5 gal. hydraulic oil spilled from fixed site (marine) into Bayport Turning Basin due to equipment failure; Classification: minor; Adequate Clean: yes</li> <li>January 1992; 5 gal. of water with oil and ethyl spilled from fixed site (marine) into Bayport Channel due to equipment failure; Classification: minor; Adequate Clean: yes</li> </ul>
Baytank (Houston) Inc	12211 Port. Road Seabrook, TX 77586	AIRS	

Table K-1 (continued)

Facility name	Address	Databases	Comments
Gulf Coast Waste Disposal Authority - Bayport	10800 Bay Area Blvd. Pasadena, TX 77507	Ind Haz Waste RCRIS-SQG FINDS Ind Haz Waste	NOTE: Exclusive to the Proposed Action
Bayport Facility	10800 Bay Area Blvd. Pasadena, TX 77501	AIRS	NOTE: Exclusive to the Proposed Action
AM General Corp	Hwy 59 N Marshall, TX 75670	RCRIS-SQG FINDS	NOTE: Exclusive to the Proposed Action
Dixie Chemical Inc	10701 Bay Area Blvd. Pasadena, TX 77507	FTTS Ind Haz Waste UST	<ul style="list-style-type: none"> <li>• 2 USTs removed from ground</li> </ul> NOTE: Exclusive to the Proposed Action
10701 Bay Area Blvd. Pasadena, TX 77507	10701 Bay Area Blvd. Pasadena, TX 77507	ERNS	NOTE: Exclusive to the Proposed Action
Bayport Facility	10701 Bay Area Blvd. Pasadena, TX 77507	AIRS	NOTE: Exclusive to the Proposed Action
Dixie Chemical Company	10701 Bay Area Blvd. Pasadena, TX 77507	TX Spills	<ul style="list-style-type: none"> <li>• April 1996; 5756 lb.(900 gal.) of sodium hydroxide spilled from fixed site (inland) due to human error; Classification: minor; Adequate Clean: No</li> <li>NOTE: Information received from TNRCC 6/2002: spilled material caught in containment area, pumped to waste water treatment ponds and neutralized with carbon dioxide; clean-up complete.</li> <li>• Sept. 1998; 1379 gal. methanol released. Classification: minor; Media Affected: land; Adequate Clean: yes</li> <li>• October 1998; 2400 gal. industrial waste spilled; Media Affected: land and water; Classification: other pollutant; Adequate Clean: incomplete</li> <li>NOTE: Information received from TNRCC 6/2002: aeration pond waste water spilled over berm into ditch; ditch was dammed and water was vacuumed up; material was routed to waste water treatment; clean-up complete.</li> <li>• July 1998; 25,000 gal. toluene, DCE-410 spilled into San Jacinto River; Media Affected: air and land; Adequate Clean: yes</li> </ul>

**Table K-1 (continued)**

Facility name	Address	Databases	Comments
Combustion Research Group	10701 Bay Area Blvd. Pasadena, TX 77507	Ind Haz Waste	NOTE: Exclusive to the Proposed Action
Ticono Gur Americas	12212C Port Road Pasadena, TX 77507	FINDS RCRIS-LQG TRIS	NOTE: Exclusive to the Proposed Action
Hanson Concrete South Central	10430 Port Road Pasadena, TX 77507	FINDS	NOTE: Exclusive to the Proposed Action
Bayport 18	10430 Port Road Pasadena, TX 77507	AST	• 1 Diesel AST in-use NOTE: Exclusive to the Proposed Action
10901 Bay Area Blvd.	10901 Bay Area Blvd. Pasadena, TX	ERNS	NOTE: Exclusive to the crossing of Taylor Bayou that was part of the initially proposed route for the Proposed Action

*Abbreviation	Database
AIRS	Current Emission Inventory Data
AST	Aboveground Storage Tank
CERC-NFRAP	Comprehensive Environmental Response, Compensation, and Liability Information System - No Further Remedial Action Planned
CORRACTS	Corrective Action Report
ERNS	Emergency Response Notification System
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report
FTTS	FIFRA/TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act), TSCA (see below)
Ind. Haz Waste	Industrial and Hazardous Waste Database
LUST	Leaking Underground Storage Tank
RCRIS-LQG	Resource Conservation and Recovery Information System - Large Quantity Generator
RCRIS-SQG	Resource Conservation and Recovery Information System - Small Quantity Generator
RCRIS-TSD	Resource Conservation and Recovery Information System - Treatment, Storage, and Disposal
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
TX Spills	Spills Database (from Texas Commission n Environmental Quality)
UST	Underground Storage Tank
WASTEMGT	Commercial Hazardous and Solid Waste Management Facilities

**Table K-2  
Summary of Findings Regarding Hazardous Materials/Waste Sites for the Alternatives 2B and 2D from  
Environmental Regulatory Agency Database Searches and Interviews with Agency Representatives**

NOTE: Table K-2 presents sites located to the west of the intersection of the alignment for the Alternatives 2B and 2D and Red Bluff Road. Sites to the east of this intersection are the same as the sites listed in Table K-1 for the Proposed Action and Alternative 1C and are therefore relevant to Alternatives 2B and 2D.

**Alternative 2B:**

Facility name	Address	Databases	Comments
Walker Sand Inc.	2618 Genoa Red Bluff Houston, TX 77034	AST	<ul style="list-style-type: none"> <li>• 1 diesel AST temporarily out of use</li> </ul>
Coastal Vacuum Tank Service	2620 Red Bluff Road Houston, TX 77034	Ind Haz Waste	
Southeast Water Purification	2620 Genoa Red Bluff Road Houston, TX 77034	UST	<ul style="list-style-type: none"> <li>• 3 USTs removed from ground</li> </ul>
Custom Blast Services	2550 Genoa/Red Bluff Road Houston, TX 77034	RCRIS-SQG FINDS Ind Haz Waste LUST UST AIRS	<ul style="list-style-type: none"> <li>• LUST reported Feb. 1992; minor soil contamination, final concurrence issued, case closed</li> <li>• 2 USTs removed from ground</li> </ul>
Southern Crushed Concrete	6000 Farley Houston, TX 77284	AIRS	
2202 Genoa Red Bluff Road	2202 Genoa Red Bluff Road Houston, TX 77034	ERNS HMIRS	

**Table K-2 (continued)**

Facility name	Address	Databases	Comments
Laidlaw Environmental Svcs (FS) Inc.	2202 Genoa Red Bluff Road Houston, TX 77034	PADS FINDS RCRIS-LQG RAATS TX Spills	<ul style="list-style-type: none"> <li>Dec. 1991; 25 gal. of hazardous waste benzene released from fixed site inland due to human error. Classification: minor; Adequate Clean: yes</li> </ul>
EBY, Martin K. Construction Co.	2202 Genoa Red Bluff Road Houston, TX 77034	UST	<ul style="list-style-type: none"> <li>3 USTs removed from ground</li> </ul>
Safety-Kleen (FS)	2202 Genoa Red Bluff Road Houston, TX 77034	Ind Haz Waste	
RSH Trucking Co., Inc.	2104 Genoa Red Bluff Road Houston, TX 77034	Ind Haz Waste	
Hughes Sand Pits, Inc.	2122 Genoa-Red Bluff Road Harris, TX	CLI SWF/LF Ind Haz Waste	
Hughes Landfill	2122 Genoa-Red Bluff Road Harris, TX	Ind Haz Waste CERC-NFRAP	
Timewise Food Store 5301	2001 Genoa Red Bluff Pasadena, TX 77505	UST	<ul style="list-style-type: none"> <li>3 USTs in-use</li> </ul>
Plant I	6007 Farley Houston, TX 77034	AST	<ul style="list-style-type: none"> <li>2 diesel ASTs in-use</li> </ul>
Ellington Plant	10715 Hwy 3 Houston, TX 77034	AST	<ul style="list-style-type: none"> <li>1 diesel AST in-use</li> </ul> NOTE: This site is also listed for 2D
Spraying Services, Inc.	10801 Galveston Road Houston, TX 77034	FINDS	NOTE: This site is also listed for 2D
Aqua Process Inc.	10801 Galveston Road Houston, TX 77034	RCRIS-SQG FINDS	NOTE: This site is also listed for 2D
LUMARCO, Inc.	13523 Conklin Ln. Houston, TX 77034	AST	<ul style="list-style-type: none"> <li>1 diesel AST temporarily out of use</li> </ul> NOTE: This site is also listed for 2D

**Table K-2 (continued)**

Facility name	Address	Databases	Comments
Southwestern Bell Telephone Co.	13523 Conklin Houston, TX 77088	LUST UST	<ul style="list-style-type: none"> <li>LUST reported March 1991; soil contamination only, final concurrence issued, case closed</li> <li>1 UST removed from ground</li> </ul> NOTE: This site is also listed for 2D

**Alternative 2D:**

Facility name	Address	Databases	Comments
Harris (Farley St.) Site	1000's of Genoa Red Bluff Road Houston, TX 77502	Delisted NPL ROD CERCLIS	<ul style="list-style-type: none"> <li>Abandoned landfill was leased by transporter in 1958 and disposed of over 1000 tons of hazardous waste containing benzene, styrene, toluene, and other chemicals. In 1986, the contaminated soil was removed and disposed of properly, site was deleted from NPL because EPA, in consultation with the State of Texas, determined that all appropriate response action was completed.</li> </ul>
Ellington Plant	10715 Hwy 3 Houston, TX 77034	AST	<ul style="list-style-type: none"> <li>1 diesel AST in-use</li> </ul> NOTE: This site is also listed for 2B
Spraying Services, Inc.	10801 Galveston Road Houston, TX 77034	FINDS	NOTE: This site is also listed for 2B
Aqua Process Inc.	10801 Galveston Road Houston, TX 77034	RCRIS-SQG FINDS	NOTE: This site is also listed for 2B
LUMARCO, Inc.	13523 Conklin Ln. Houston, TX 77034	AST	<ul style="list-style-type: none"> <li>1 diesel AST temporarily out of use</li> </ul> NOTE: This site is also listed for 2B
Southwestern Bell Telephone Co.	13523 Conklin Houston, TX 77088	LUST UST	<ul style="list-style-type: none"> <li>LUST reported March 1991; soil contamination only, final concurrence issued, case closed</li> <li>1 UST removed from ground</li> </ul> NOTE: This site is also listed for 2B

**Table K-2 (continued)**

<b>*Abbreviation</b>	<b>Database</b>
AIRS	Current Emission Inventory Data
AST	Aboveground Storage Tank
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP	Comprehensive Environmental Response, Compensation, and Liability Information System - No Further Remedial Action Planned
CLI	Closed Landfill Inventory
Delisted NPL	National Priority List Deletions
ERNS	Emergency Response Notification System
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report
HMIRS	Hazardous Materials Information Reporting System
Ind. Haz Waste	Industrial and Hazardous Waste Database
LUST	Leaking Underground Storage Tank
PADS	PCB Activity Database System
RAATS	Resource Conservation and Recovery Act Administrative Action Tracking System
RCRIS-LQG	Resource Conservation and Recovery Information System - Large Quantity Generator
RCRIS-SQG	Resource Conservation and Recovery Information System - Small Quantity Generator
ROD	Records of Decision
SWF/LF	Permitted Solid Waste Facilities
TX Spills	Spills Database (from Texas Commission on Environmental Quality)
UST	Underground Storage Tank
WASTEMGT	Commercial Hazardous and Solid Waste Management Facilities

**Table K-3  
Summary of Findings Regarding Landfills for Alternatives 2B and 2D from  
Environmental Regulatory Agency Database Searches and Interviews with Agency Representatives**

<b>Permittee Name/Owner<sup>a</sup></b>	<b>Address/ Latitude and Longitude<sup>b</sup></b>	<b>Permit Number/ Date Received</b>	<b>Size (Approx.) Acres<sup>c</sup></b>	<b>Comments</b>
Hughes Sand Pits, Inc. Mr. James B. Hughes	2122 Genoa-Red Bluff Road 29°37.45/95°9.85	<b>150</b> Sept. 1975	62	Proposed Site/Site Under Post Closure Care No Permit Issued <sup>d</sup> Unauthorized Site <sup>e</sup> Date of Closure: 10/1988 <sup>d</sup>
Sanifill of Texas, Inc.	Off Genoa-Red Bluff Road 1 mile East of intersection with SH-3, on Unpaved Road 29°37.10/95°10.95	<b>1478</b> Aug. 1981	40	Proposed Site/Site Closed to Waste (Final Cover in Progress) Date of Closure: 8/1985
Urban Waste Tech	505 Genoa-Red Bluff Road 29°37.5/95°11.5	<b>1483</b> May 1982	77	Proposed Site/Application or Permit Combined with Another Permit Permittee: Jim Pace/Building Contractors, Inc. <sup>f</sup> Transferred: June 1988
Waste Corp. Of Texas, Inc.	10007 Koenig Road 29°37.5/95°11.5	<b>1483A</b>		Previously Approved Site/Permit Issued
Urban Waste Tech	100 Genoa Red Bluff Road 29°37.5/95°11.5	<b>1483B</b> July 1991		Previously Approved Site/Application Withdrawn Classified by TCEQ as transfer station Transferred: June 1988
Urban Waste Tech	Intersection of Old Genoa Red Bluff and Hayesworth Road 29°37.5/95°11.3	<b>1586</b> Feb. 1983	28	Previously Approved Site/Permit Issued Date of Closure: 2/1908 Transferred: 3/1994 NOTE: There is also a permit 1586A with a different permittee name/owner - Waste Corp. Of Texas, Inc. and transfer date - 5/2000, all other information is the same for the site

Table K-3 (continued)

Permittee Name/Owner <sup>a</sup>	Address/ Latitude and Longitude <sup>b</sup>	Permit Number/ Date Received	Size (Approx.) Acres <sup>c</sup>	Comments
T. Delbert Walker	SE Intersection Genoa-Red Bluff Road & Grayson Lane 29°37.5/95°10.85	<b>1589</b> Mar. 1983	24	Proposed Site/Application Withdrawn Date of Closure: 3/1/1987
Hughes Sand Pits, Inc.	Adjacent to East Side of Farley Street, 2200ft South of Genoa-Red Bluff Road 29°37.5/95°9.55	<b>1881</b> Feb. 1986	30	Proposed Site/Application Withdrawn
Barnes Tire Company, Inc.	706 1/3 Red Bluff Road,Se Cor. Of Genoa-red Bluff & Hayesworth 29°37.57/95°11.04	<b>2192</b> Dec. 1990	0.10	Unauthorized/Non-permitted Site/Application Withdrawn
Applerock Group	1/4 Mile East of Intersection of SH3 313 Genoa Red Bluff Road 29°37.31/95°11.48	<b>2276</b> Mar. 1999	100	Proposed Site/Permit Issued

**FOOTNOTES**

<sup>a</sup> All information in Table K-3 is from the FoxPro Database for Region 12 from TCEQ Municipal Solid Waste Permits Section, unless otherwise noted. All landfills listed, except as noted, are classified by TCEQ, Municipal Solid Waste Section, as sanitary landfills for brush and/or construction-demolition material for which monthly cover is required.

<sup>b</sup> The latitude and longitude information typically corresponds to the facility address. SEA did not have access to precise information regarding the exact outline of these landfills.

<sup>c</sup> The outline of the landfills is believed to have changed over the years, at least in some cases.

<sup>d</sup> Permitted Sites List from TCEQ Municipal Solid Waste Permits Section.

<sup>e</sup> Unauthorized Sites List from TCEQE Municipal Solid Waste Permits Section.

<sup>f</sup> Documentation of Permit Number 1483 from Texas Department of Health dated May 11, 1982.