Weber, Hayes and Associates
120 Westgate Drive, Watsonville, CA 95076
(831) 722-3580 Fax: (831) 722-1159
www.weber-hayes.com

Erik N. Zinn
Nolan, Zinn and Associates
1509 Seabright Avenue, Suite A2
Santa Cruz, California 95062

Subject: Review of Environmental Conditions at Four Potential Sites Considered for the Montere Bay Sanctuary Visitor Center. Site locations include:
- Santa Cruz (2 sites): Former Fun Spot, and the Beach Boardwalk,
- Aptos: Seacliff State Beach; and Monterey: Historic Train Depot

EXECUTIVE SUMMARY

Environmental financial liabilities are commonly revealed during property development particularly where there is a land use conversion from industrial or commercial properties. The unexpected discovery of contamination during construction operations (i.e. trenching, drilling, demolition, and foundation work) or unwitting handling of impacted soils can cause worker health hazards, project delays, and unanticipated development costs. It should be noted that when a chemical release is discovered, the initial responsibility for contaminant characterization and cleanup is immediately attributed to the property owner ("responsible party").

This letter report provides a professional opinion on potential environmental liabilities associated with possible property development at the four locations identified above and a comparative ranking of each sites' environmental liabilities relative to each other. The assessment is based on a check of environmental databases, a review of site-specific regulatory files, and historical land use research. Copies of research documents are included as a separate attachment.

Table 1 provides a detailed summary of the environmental assessment findings and the relative risk ranking. A summary of the rankings is presented below:

SITE NAME	SITE SPECIFIC CONDITIONS	ENVIRONMENTAL RISK RANKING
Beach Boardwalk	- Museum space is targeted for the 3rd story of this existing structure. There appears to be no significant environmental risk as all soils are encapsulated by structures, streets, or walkways. - Should any major renovation be done to the foundations of this structure, we would recommend completion of a limited Phase II sampling program (additional $7-8,000).	**LEAST Environmental Risk** (Minimal Potential Of Environmental Liability) $5,000 to complete Phase I Assessment.

SITE NAME	SITE SPECIFIC CONDITIONS	ENVIRONMENTAL RISK RANKING
Seacliff State Beach	- Environmental risks do not appear significant for this site. A fiscally solvent, responsible party (State of California) is on the hook for cleanup of an upgradient fuel leak that appears to be primarily diesel (limited health risk). - No structures are currently on the property. Phase II sampling of shallow soil recommended because new construction, including earthworks for foundations, is required for this site to be a candidate.	**LOW Environmental Risk** (Minimal Potential Of Environmental Liability) $10-15,000 to fully assess.
Fun Spot	- Environmental risks do not appear significant for this site even though it was a former fuel leak site (closed by regulators in 1994). - No structures are currently on the property. Phase II sampling of shallow soil recommended because new construction, including earthworks for foundations, is required for this site to be a candidate.	**LOW Environmental Risk** (Minimal Potential Of Environmental Liability) $10-15,000 to fully assess.
Monterey Train Depot	- There is significant potential for negative environmental conditions underlying this site, particularly if there will be foundation upgrades and/or earth works. Historic land use maps show all lands immediately upgradient and sidegradient of the subject property contained long-term bulk chemical storage and use (gas stations, gasification plant). - An active fuel leak site is located 200 feet from the depot in the upgradient direction. - Currently, the site is encapsulated by the existing structure and asphalt surfaces that protect receptors from potential toxic impacts. There is only limited environmental risk to the public if underlying soils/groundwater are not disturbed. Existing and potential construction risks can only be quantified by completing a Phase II drilling and sampling program.	**HIGHEST Environmental Risk** (Likely Risk Of Some Environmental Liability) $15-25,000 to fully assess.

This assessment provides limited assurances of risk since it relies on current site conditions and a limited database of regulatory and historical documentation. We recommend obtaining indemnification from property owners for costs associated with the characterization or cleanup of unforeseen contamination discovered during facility development. We also recommend completing the site-specific, Phase I or Phase II assessment work described above to assist with project planning.

PURPOSE AND SCOPE

This report contains property assessment research that has been conducted to review environmental liabilities resulting from historic or existing environmental hazards for the subject property. The purpose of this assessment is to provide a professional opinion regarding recognized environmental conditions at the site, including potential impacts from known problems in the surrounding area. The term "*recognized environmental conditions*", is defined as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a pas

release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property" (ASTM Standard E 1527-00). This assessment provides limited assurances of risk since it relies on current site conditions and a limited database of regulatory and historical documentation. Limitations and Exceptions of Assessment are listed at the end of this report.

Defined Scope and Methodology: Our scope of services for this investigation was defined in our proposal dated March 17, 2003 and authorized by Nolan, Zinn and Associates on April 18, 2003. This letter report and attachments are organized as follows. Included with this report is:

- A brief summary of relevant and available environmental documents reviewed for each of the four sites and includes a description of current site conditions, a review of historic land use maps, and a review of regulatory databases.

- A detailed summary of the environmental assessment findings and the relative risk ranking (Table 1).

Included as a separate attachment to this letter report are copies of the collected data for each site including:

- Location (topographic) and Site (recent aerial).
- Historical land use maps and aerials.
- Copies of the radius report generated by an information research firm specializing in environmental data collection (list search of regulatory databases which document known underground fuel storage tanks (UST's), subsurface contaminated sites, hazardous waste generation or treatment-storage-and disposal facilities, cleaning facilities, and landfills located within an ASTM survey radius).
- Copies of site-specific drilling/remediation reports.

SUMMARY OF ENVIRONMENTAL CONDITIONS AT EACH SITE

This section contains a brief summary of environmental documents reviewed for each of the four sites and includes a description of current site conditions, a review of historic land use maps, and a review of regulatory databases. As noted above, copies of historical documents and individual research reports are included in the separate attachment.

Site #1: The Fun Spot: This approximately 15,000 ft^2 site is bisected by active railroad tracks and is currently owned by the City of Santa Cruz. The flat-lying lot is located across Beach Avenue from the Municipal Wharf in Santa Cruz and currently contains a recreational skateboard park and automotive parking lot. Current site land use conditions do not indicate any recognized environmental condition[1].

[1] : ASTM Standard E 1527-00:definition, *recognized environmental conditions*: the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

Shallow soils beneath the site are reported to be fine sand and silt and groundwater was measured to at depths of 8-to-10 feet below ground surface.

Fun Spot – Historic Data: Historic aerial photographs, fire insurance maps, USGS topographic maps, and private maps can be valuable resources for identifying obvious land use changes since it was developed. Each record provides a snapshot of land use details present at the time it was prepared. Depending on resolution, aerial photographs can provide evidence of notable land use changes to the property and potential clues of hazardous material storage. Detailed insurance maps (Sanborn™), which were historically prepared in urbanized areas and revised every 20-30 years, can provide more insight regarding potential hazardous material use. The series of historic USGS topographic maps are air photo-revised approximately every 15 years and can also provide information on land use changes over time. Available resources indicate the following land uses over time:

Date	Subject Site	Ugradient/Adjoining Land Use
1888 &1892	SPRR freight warehouse	Cement warehouse, lagoon pond, lodging, and residences.
1905	Ice Company	Railroad depot and maintenance yard with roundhouse, residences
1928	Restaurant and Store	
1950		Railroad depot (passenger/freight), residences
1988	Gas station & parking lot	Railroad tracks (no depot), residences

Fun Spot – Regulatory Database and Local Agency File Review: Records of hazardous material storage and releases are required to be kept by regulatory agencies overseeing environmental issues. An information research firm specializing in environmental data collection of selected regulatory databas prepared a *Radius Map Report* for the site (copy included in attachment). Listed sites include those locations having registered underground fuel storage tanks (UST's), documented disposal of hazardous waste generation, permitted hazardous waste treatment-storage-disposal facilities, and regulatory-required subsurface contamination investigations. The research includes maps that locate individual sites having a regulatory paper trail and details on identified sites, provides a description of the 33 Federal and State agency databases reviewed, and limitations to the search. We also completed a review of County Heath Services Agency files regarding environmental conditions at the subject site. The research shows there was a release of gasoline from underground storage tanks removed in 1980. The leaking underground fuel tank site gained regulatory case closure (no further action) following characterization drilling, removal of 200 yd^3 of contaminated soil at the former tank pit location, monitoring of groundwater from 1998 through 1993, and submittal of a request for closure. The combination of source removal and case closure by the overseeing agency indicates this contaminant release is less than significant. There are no documented off-site environmental cases identified that have the potential to impact the subject site (see *Radius Map Report* for additional details, copy included in attachment).

Fun Spot – Summary: Table 1 (Summary Matrix and Ranking Rationale) presents an overview of environmental risk for the Fun Spot taking into account regulatory records and historical land use resources. These records indicate the Fun Spot site does not appear to have significant liability. However, since the Fun Spot site will require major earthworks for construction of a new building and the site did have a history of commercial and light industrial use and a documented fuel release, we

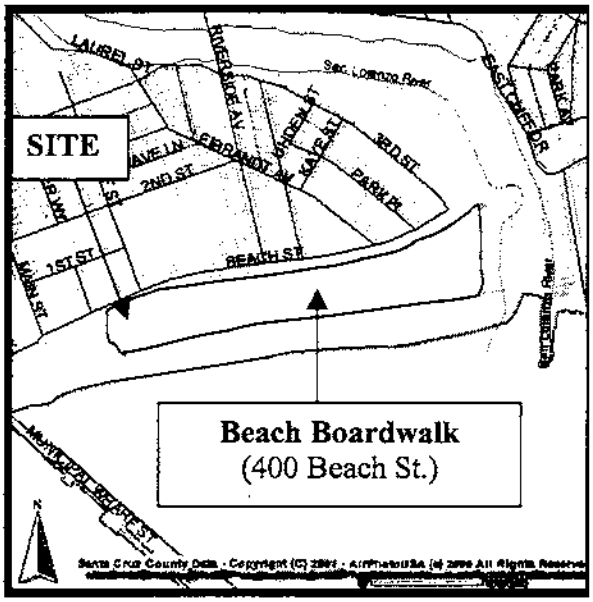
recommend completing a Phase II drilling program to provide assurances against the discovery of unexpected contamination during construction.

Site #2: The Beach Boardwalk Site: This candidate location contains approximately 6,500 ft^2 of available space in the upper floor of an existing structure owned by the Santa Cruz Seaside Company. The lower floor of the facility contains a miniature golf course and arcade (Neptune's Kingdom) and has been an amusement park since the early 1900s. It is situated along the flat-lying promenade of the Santa Cruz Beach approximately 3 blocks east of the Fun Spot (Site #1). Current site land use conditions do not indicate any recognized environmental conditions. Shallow soils beneath the site are beach sands and groundwater is encountered at depths of less than 10 feet below ground surface.

Beach Boardwalk – Historic Data: Detailed insurance maps (Sanborn™), indicate the following land uses over time:

Date	Subject Site	Ugradient/Adjoining Land Use
1905	Casino Ball Room & Beach Dressing Rooms	Vacation "tent city", stores, and residences
1928	Resort Casino (stage, movie theatre, restaurant and stores)	Garage w/ "oil tank in ground", auto service, hotel, stores and residences.
1950		Garage-auto service ("gas & oil"), hotel, stores and residences.
1988		Hotel, stores and parking.

Beach Boardwalk – – Regulatory Database and Local Agency File Review: Database records show the Beach Boardwalk facility, which has a mailing address of 400 Beach Street, is over 13 acres in size. The 400 Beach Street address is identified in 4 regulatory databases but is relevant only to the eastern portion of this large parcel (see map, right). Specifically, a 5-gallon gasoline release was reported from a truck spill near the river (eastern portion of the property); the facility maintenance facility generates waste cleaning products and historically contained underground fuel storage tanks (also located on the eastern portion of the 13-acre amusement park). There are no documented off-site environmental cases identified that have the potential to impact the subject site (see *Radius Map Report* for additional details, copy included in attachment).



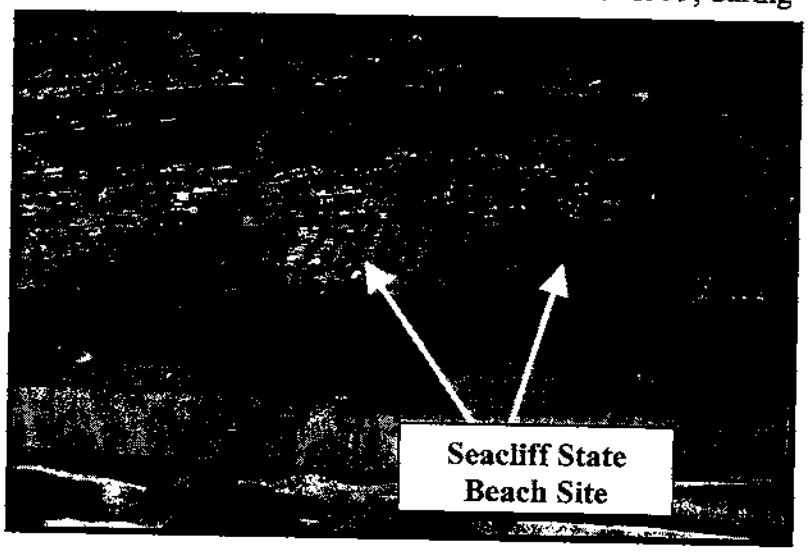
Beach Boardwalk – – Summary: As mentioned earlier, Table 1 presents an overview of environmental risk for each of the four candidate locations and takes into account regulatory records and historical land use resources. These records indicate the Beach Boardwalk site does not appear to have significant liability. In addition, the Beach Boardwalk site will not require major earthworks for construction as the building

is in place. We recommend checking the work area for asbestos and lead paint if remodeling plans include demolition/construction of walls or ceiling.

Site #3: The Seacliff State Beach Site: This candidate location contains approximately 3 acres of flat-lying, buildable space (130,000 ft^2) in Aptos which is owned by the State of California (State Parks). The site contains a paved parking area and an undeveloped field that is used for overflow parking (see Aerial Map, below). There do not appear to be any current site land use conditions at the site that would suggest a recognized environmental condition. Drilling logs from a nearby property reported shallow bedrock conditions (25 feet) and unconsolidated soils consisting of sand, to silty-sand, to silty-clay. First encountered groundwater was documented to be ephemeral with seasonal fluctuations as high as 6 feet below ground surface in the wet season and >25 feet in the dry season.

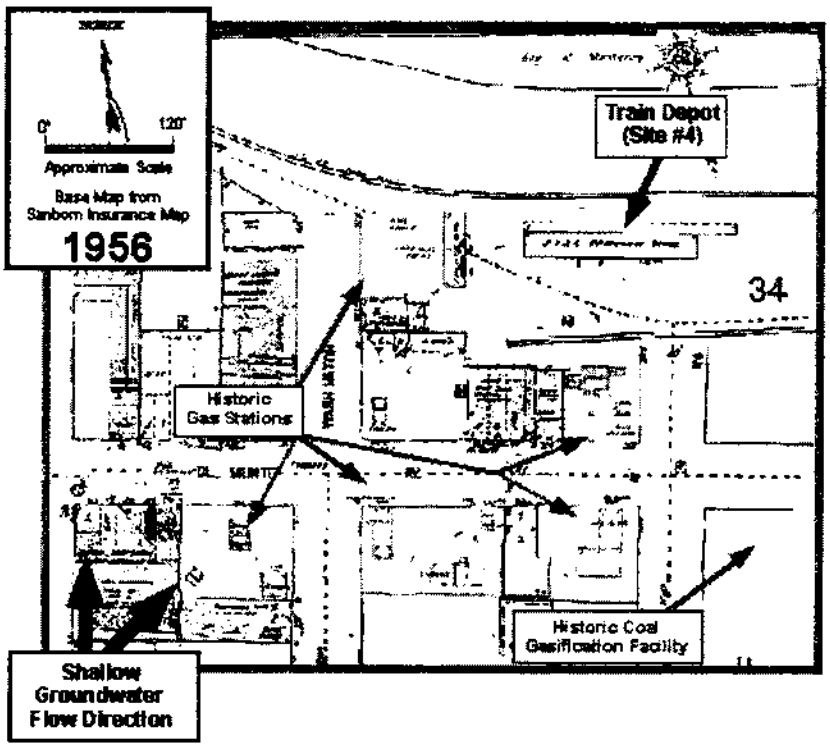
Seacliff State Beach - Historic Data: Historic topographic maps and aerials show the site and adjoining properties to be residential or undeveloped since at least 1954. These land use conditions are not considered to be an environmental liability.

Seacliff State Beach - Regulatory Database and Local Agency File Review: Database records show the Seacliff State Beach maintenance facility, located immediately upgradient of the proposed paved parking lot portion of the subject site, has a diesel release. The release was discovered in December 1999, during the removal of underground fuel storage tanks (USTs) at the facility. A UST closure report documented elevated concentrations of diesel and trace levels of gasoline beneath the tanks and dispensers (diesel up to 5,900 mg/kg, gasoline up to 150 mg/kg). The County of Santa Cruz directed the owner to characterize the extent in 2000 but no additional work has been documented. There are no documented off-site environmental cases identified that have the potential to impact the subject site (see *Radius Map Report* for additional details, copy included in attachment).



Seacliff State Beach - Summary: Table 1 presents an overview of environmental risk for each of the four candidate locations and takes into account regulatory records and historical land use resources. These records indicate that although there is a documented diesel release on the adjoining parcel, the Seacliff State Beach site does not appear to have significant liability because 1) a fiscally solvent, responsible party (State of California) is on the hook for cleanup of the fuel leak, and 2) the release appears to be primarily diesel, which has a limited health risk and is unlikely to impact building operations. However, since the Seacliff State Beach site will require major earthworks for construction of a new building we recommend completing a limited Phase II drilling program upgradient and within the building envelope to provide assurances against the discovery of unexpected contamination during construction (see Table 1 for details).

Site #4: The Monterey Train Depot Site: This candidate property is located on Del Monte Avenue near Fisherman's Wharf. The property contains a historic building (passenger depot building) that has an estimated 10,000 ft^2 of available space. The building, which is owned by the City of Monterey, is currently unoccupied but has been a passenger depot since the early 1900s. The depot building is immediately adjacent to railroad tracks on a flat-lying terrace adjacent to Monterey Bay. A large parking lot separates the site from the bay. Current site land use conditions do not indicate any recognized environmental conditions.



Monterey Train Depot - Historic Data: Historic aerial photographs, fire insurance maps, USGS topographic maps were used for identifying obvious land use changes since it was developed. Detailed Sanborn™) insurance maps were particularly useful in monitoring periodic land use changes in the upgradient properties over time:

Date	Subject Site	Ugradient/Adjoining Land Use
1905	Ice House, and Warehouse	Gas Works (gas house, oil tanks boilers); Lumber Co.
1912		Gas Works (gas house, oil tanks boilers); Stores and residences
1926	SPRR Passenger Depot	Warehouse, laundry, residences
1943		Gas Stations (5) commercial and industrial warehouses, plumbing, auto sales and repair
1949		
1956		
1962		

Monterey Train Depot - Regulatory Database and Local Agency File Review: Database records show the Monterey Passenger Train Depot has no record of chemical spills, releases or generation of hazardous waste. However there are a number of documented off-site environmental cases that have the

potential to impact the subject site. Specifically, there was a large coal gasification plant that operated in the early 1900s on property located approximately 500 feet upgradient from the subject property. These type facilities are renown for toxic chemical releases to soils and groundwater and it is unclear that investigative drilling was completed at this property. In addition to the gas works plant, regulatory files indicate there is an active gasoline fuel leak site located immediately upgradient of the subject facility (312 Del Monte Ave). MTBE was detected at this site in June 2002, at a concentration of 549 parts per billion, which exceeds the water quality goal of 5 ppb (see *Radius Map Report* for additional details, copy included in attachment). Both of these sites have potential to impact the subject site.

Monterey Train Depot - Summary: Again, Table 1 presents an overview of environmental risk for each of the four candidate locations and takes into account regulatory records and historical land use resources. These records indicate the Monterey Train Depot site does appear to have significant potential for negative environmental liability.

- It should be noted that the site is encapsulated by the existing structure and asphalt surfaces that protect receptors from potential toxic impacts. There is only limited environmental risk to the public if underlying soils/groundwater are not disturbed. It should also be noted that if the site requires major earthworks for retrofitting the building, then there is a high potential for negative environmental liability, especially for worker health and safety.

Due to the long-term commercial-industrial land use history of the area, including the subject site, and documentation of a nearby fuel release site, we recommend completion of a Phase I ESA to identify all recognized environmental conditions, a Phase II drilling to quantify shallow soil and groundwater quality, a geophysical survey for underground storage tanks, and an asbestos and lead survey on the site structure. Should elevated levels of chemicals be detected a Health-Based Risk Assessment may also need to be completed.

LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

This report and the associated work have been provided in accordance with the principles and practices generally employed by the local environmental consulting profession. This is in lieu of all other warranties, express or implied. This report has been prepared solely for our client (Nolan, Zinn and Associates) for preparation of the Sanctuary Museum Feasibility Study. The assessment is provided so the client may make a more informed decision as to site conditions. This report shall not be relied upon by or transferred to any other party, or used for any other purpose, without the express written authorization of Weber, Hayes and Associates.

This assessment is not a regulatory compliance audit or an evaluation of the efficiency of the use of any hazardous materials at the site. No evaluation for the presence of lead-based paint, urea-formaldehyde foam insulation, or other potentially hazardous building materials; methane; radon gas; lead in drinking water; or wetlands, is included in our assessment.

Our findings and opinions are based on information collected from regulatory agency files and lists, interviews, and site conditions at the time of our site reconnaissance. Note that our findings and opinions are based on information that we obtained on specific dates through records review, site reconnaissance,

and related activities. It is possible that other information exists or subsequently has become known, just as it is possible for conditions we observed to have changed after our observations.

The accuracy and thoroughness of any environmental assessment depend on a variety of factors and optimally will include soil and groundwater sampling. Weber, Hayes and Associates cannot and will not provide guarantees, certifications or warranties that the investigated property is or is not free of environmental impairment. Any person who is aware of any recognized environmental conditions of the site or surrounding areas that are different from those described in the report should report them immediately to this office for evaluation as part of an additional scope of work.

Thank you for this opportunity to be of service. Should you have any questions or comments regarding this project, please contact us at our offices.

Respectfully submitted,

WEBER, HAYES AND ASSOCIATES
A California Corporation

By:
Patrick Hoban
Project Geologist

Attachments

Summary Matrix - Ranking Rat

Cost Estimate to Complete Individu

Monterey Bay Sanctua

Site	Risk from SUBJECT PROPERTY					Risk from ADJACENT [illegible]		
	Regulatory Records			SIGNIFICANT LAND USE current/historic	Risk Ranking	Regulatory Records		
	Fuel-Chemical Release	Chemical Storage	Generation of Haz-Waste			Fuel-Chemical Release	Chemical Storage	Haz-Waste
Site #1 Fun Spot	yes (closed)	yes (pre-1980)	yes (pre-1980)	- Gas Station previously operated at the site. - Former Leaking Underground Storage Tank (LUST) site. Remedial excavation and monitoring occurred between 1987-1994 and regulatory case closure granted in October-1994.	MODERATE	no	yes (small quantity)	yes (small quantity)
Site #2 Beach Boardwalk	no	no	no	- Existing structure present in 1928 insurance maps. - Hazardous materials storage located in different section of the Boardwalk. - Historic underground fuel storage tanks also located in a different section of the Boardwalk property.	LOW	no	yes (small quantity)	yes (small quantity)
Site #3 Seacliff State Beach	no	no	no	- Site is currently a State Beach parking lot (paved and unpaved). Surrounded by residential properties.	LOW	yes (active site)	yes	yes
Site #4 Monterey Train Depot	no	no	no	- Existing structure present in 1943 insurance map. Depot present at this site in 1905 insurance map. Site present in heavily industrialized/commercial area. - No identified hazardous materials storage present in historical or regulatory records.	MODERATE	yes (active site)	yes	yes

Sources = Polk Reverse Telephone Directories, historical insurance maps and aerial photos, and a regulatory database search.
Fuel Release/LUST Site= Regulatory database record of a fuel release from an Underground Storage Tank
Chemical Storage= Regulatory database record of chemical storage, typically fuels stored in an underground fuel storage tank.
Haz-Waste= Regulatory database record of waste chemicals transported properly off-site to a disposal/recycling facility.

Category A: NO APPARENT ENVIRONMENTAL LIABILITY - Site has no apparent evidence of environmental liabilities. Examples include sites which contained reside

Category B: MINIMAL POTENTIAL OF ENVIRONMENTAL LIABILITY - Site has no apparent evidence of significant environmental liability. Examples include retail bus ESA is recommended to confirm no recognized environmental conditions exist and an asbestos and lead survey should be completed for older building

Category C: LIKELY RISK OF SOME ENVIRONMENTAL LIABILITY - Site land use includes commercial and industry types that traditionally store and use large quantit chemical releases that have been previously characterized with borings/wells. Examples include gas stations, automotive repair, and machine shops. C work should include a geophysical survey for underground tanks, and asbestos and lead surveys.

Category D: HIGH RISK OF ENVIRONMENTAL LIABILITY - Site land use includes commercial and industry types that traditionally store and use large quantites of che releases that are not characterized or are large in magnitude. Examples include active leaking underground fuel storage tank releases, long-term indus completion of a site-specific Phase I ESA, a geophysical survey for underground tanks, subsequent design and completion of an intensive Phase II samp

Table 1

onale Based on Environmental Risk

l Preliminary Environmental Assessments

y Museum Site Selection Study

UPGRADIENT PROPERTIES		ENVIRONMENTAL RISK RANKING & POTENTIAL ASSESSMENT COSTS		
SIGNIFICANT LAND USE SUMMARY	Risk Ranking	ENVIRONMENTAL RISK RANKING (see below for description) & ASSESSMENT COST ESTIMATE (Phase I-Phase II)		ADDITIONAL COMMENTS
- No significant upgradient risk. - Upgradient properties include former train depot (recent environmental clearance) and small businesses (small quantity storage of hazardous materials/waste);	LOW	Category B	$10-15,000: Recommend completion of Phase I ESA and limited Phase II drilling to confirm environmental conditions for worker health and safety during construction.	- No structures currently on the property. - Phase II sampling of shallow soil recommended because new construction, including earthworks for foundations, is required for this site to be a candidate. - Environmental risks do not appear significant for this site.
- Insurance maps shows a gas station and auto garage was previously located 300 feet upgradient of the site.	LOW	B	$5,000: Completion of a Phase I ESA is recommended to confirm no recognized environmental conditions exist and an asbestos and lead survey should be completed due to the age of the site structure.	- Museum space is targeted for the 3rd story of this structure. There is no significant environmental risk as all soils are encapsulated by structures, streets, or walkways. - Should any major renovation be done to the foundations of this structure, we would recommend completion of a limited Phase II sampling program (additional $7-8,000).
- A park maintenance facility is located immediately upgradient of the site (vehicle maintenance and bulk chemical storage). - A release of diesel and some limited gasoline was detected during a recent underground tank closure (1998).	MODERATE	B	$10-15,000: Recommend completion of Phase I ESA and limited Phase II drilling to confirm environmental conditions for worker health and safety during construction.	- Environmental risks do not appear significant for this site. A fiscally solvent, responsible party (State of California) is on the hook for cleanup of the upgradient fuel leak which appears to be primarily diesel (limited health risk). - No structures are currently on the property. Phase II sampling of shallow soil recommended because new construction, including earthworks for foundations, is required for this site to be a candidate.
- Insurance maps show all lands immediately upgradient and sidegradient of the subject property to contain bulk chemical storage (gas stations, gasification plant). - An active fuel leak site is located 200 feet from the depot in the upgradient direction.	HIGH	C	- $15-25,000: Due to the long-term commercial-industrial land use history of the area, including the subject site, we recommend completion of a Phase I ESA to identify all recognized environmental conditions, a Phase II drilling to quantify shallow soil and groundwater quality, a geophysical survey for underground storage tanks, and an asbestos and lead survey on the site structure. Should elevated levels of chemicals be detected a Health-Based Risk Assessment may need to be completed (+$15-20,000).	- Note: There is significant potential for negative environmental conditions underlying this site. However, the site is encapsulated by the existing structure and asphalt surfaces which protect receptors from potential toxic impacts. There is only limited environmental risk to the public if underlying soils/groundwater are not disturbed. These risks can only be quantified by completing a Phase II drilling and sampling program.

ntial structures, or retail commercial businesses that traditionally do not use or store chemicals/fuels or generate hazardous wastes.

ness which generally contain businesses that traditionally <u>are not</u> identified as hazardous waste generators and store only small quantities of chemicals/fuels. Completion of a Phase I . Possible limited Phase II shallow soil sampling.

es of chemicals, generate hazardous wastes, and commonly have operations which cause significant environmental liabilities. This category can also include sites having documented mpletion of a Phase II sampling program which includes soil and groundwater samples based on Phase I ESA research is recommended to quantify environmental liability. The Phase II

micals, generate hazardous wastes, and commonly have operations which cause significant environmental liabilities. This category can also include sites having documented chemical rial properties which use large quantites of chemicals during processing and generate large quantites of waste materials, rail yards. The minimum assessment process should include ting program to include soil and groundwater sampling, transformer sampling for PCBs, asbestos and lead surveys, and completion of a human-health based Risk Assessment.