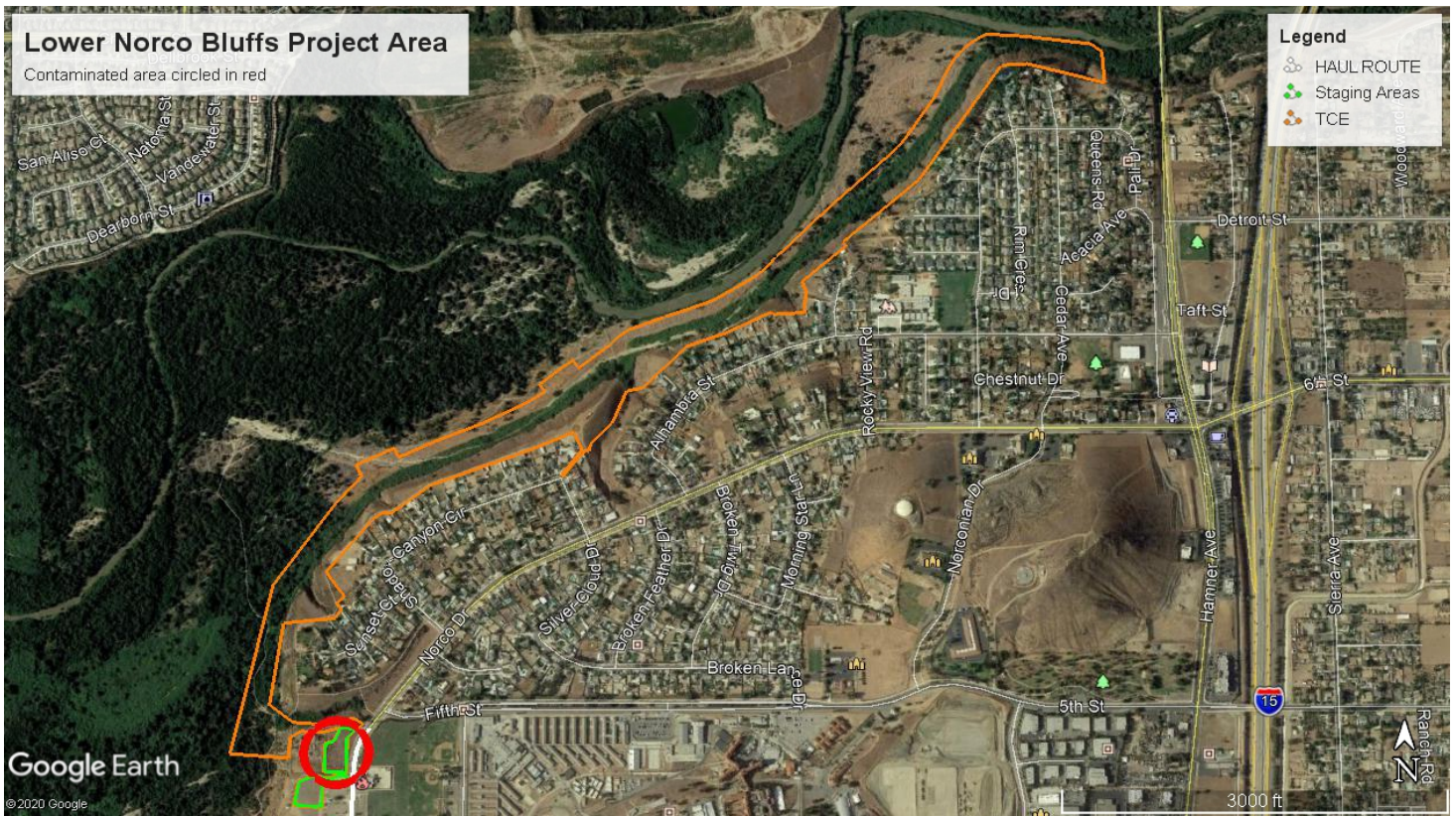


Appendix F – HTRW Report



U.S Army Corps Of Engineers Los Angeles District Geotechnical Branch, Geology & Investigations Section

HTRW Survey Report of the Lower Norco Bluffs PED Project, Corona, CA
March 2020



ACRONYMS REFERENCE WITHIN THIS REPORT

AAI: All Appropriate Inquiry (ASTM abbreviated ESA method)

ASTM: American Society for Testing and Materials

CAA: Clean Air Act (federal environmental law)

CDC: California Department of Corrections

CERCLA: Comprehensive Environmental Response Cleanup and Liability Act (federal environmental law)

CFR: Code of Federal Regulations

CWA: Clean Water Act (federal environmental law)

DTSC: Department of Toxic Substances Control (California environmental regulatory agency for soil)

EA: Environmental Assessment

EDR: Environmental Data Resources (private environmental data search record storehouse)

EIR: Environmental Impact Report (state environmental impact report)

EIS: Environmental Impact Statement (federal environmental reporting requirement)

ER: Engineering Regulation (Corps of Engineers internal regulations)

ERA: Ecological Risk Assessment

ESA: Environmental Site Assessment (general environmental reporting guideline by ASTM)

ESASs: Environmental Site Assessment Standards (category of environmental ASTM standards within the ASTM standards)

F4: Feasibility 4 (level 4 of the Corps of Engineers feasibility study process)

FS: Feasibility Study (CERCLA step)

GSA: United States General Services Administration

HHRA: Human Health Risk Assessment

HTRW: Hazardous, Toxic and/or Radioactive Waste (Corps of Engineers program terminology)

IRA: Interim Removal Action (CERCLA step)

IRAP: Interim Removal Action Plan (CERCLA step)

LARWQCB: Los Angeles Regional Water Quality Control Board (California regulatory agency for Los Angeles area water)

LUST: Leaking Underground Storage Tank

NEPA: National Environmental Policy Act (federal environmental law)

NPL: National Priority List (list of USEPA Superfund sites)

OMRRR: Operation and Maintenance Repair, Rehabilitation, and Replacement (Corps of Engineers operations and maintenance phase for Civil Works projects)

OSHA: Occupational Safety and Health Act (federal safety law)

PAH: Poly Aromatic Hydrocarbon

PCE: Tetrachloroethylene

PED: Planning Engineering Design (Corps of Engineers combined planning and engineering process/phase; occurs prior to actual construction of project)

Phase I ESA: Phase I Environmental Site Assessment (ASTM method)

Phase II ESA: Phase II Environmental Site Assessment (ASTM method)

PPA: Project Partnership Agreement (Agreement between Corps and non-Federal Sponsor to construct, operate and maintain a project)

PRP: Potential Responsible Party

RAP: Remedial Action Plan (CERCLA step)

RCRA: Resource Conservation and Recovery Act (federal environmental law)

REC: Recognized Environmental Condition

RI: Remedial Investigation (CERCLA step)

RP: Responsible Party

SARA: Superfund Amendments and Reauthorization Act (federal environmental law amending CERCLA)

SFVSS: San Fernando Valley Superfund Site (CERCLA-USEPA regulated)

SI: Site Investigation (CERCLA step)

SWRCB: State Water Resources Control Board (California environmental regulatory agency for water)

TCE: Trichloroethylene

TSCA: Toxic Substances Control Act (federal environmental law)

LADUSACE: Los Angeles District U.S. Army Corps of Engineers

USDOT: U.S. Department of Transportation

USEPA: U.S. Environmental Protection Agency (federal environmental regulatory agency)

UST: Underground Storage Tank

VOC: Volatile Organic Carbon

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MAP FIGURE 1: Map of two HTRW Impact Sites.

1.0 PURPOSE

The Corps of Engineers Los Angeles District has prepared a report that studies and outlines the alternative conceptual plans/features for the Lower Norco Bluffs Civil Works PED project. The purpose of this survey report is to identify and list potential hazardous, toxic, and radioactive waste (HTRW) impacts to this PED project.

2.0 SCOPE

This survey report was prepared in accordance with USACE ER 1165-2-132, "Hazardous, Toxic and Radioactive Waste (HTRW) Guidance for Civil Works Projects", dated June 26, 1992.

The ER does not require a specific method for performing this HTRW Survey Report, but does require that HTRW concerns be assessed and impacts and their costs reported and/or approximated, as necessary for each Civil Works project. HTRW is a programmatic definition used throughout the USACE to assess impacts, list and approximate costs associated with environmental pollutants released to the environment on Corps property and Corps Civil Works projects. For this report, HTRW impact costs were not approximated. The relative impacts of HTRW to the project were assessed according to the Engineering Regulation ER 1165-2-132. According to this ER, HTRW definition includes both CERCLA Hazardous Substances and other non-CERCLA local/state pollutants. The Engineering Regulation Hazardous Substance definition is equivalent to the ASTM definition of Hazardous Substance, as they both originate from CERCLA. The Engineering Regulation definition of other local/state pollutants is equivalent to the ASTM and USEPA definition of other contaminants and petroleum contaminants as they both are non-CERCLA related.

The full ASTM Phase I ESA or AAI procedure was not followed and RECS were not identified for any HTRW concerns/impacts while preparing this report. Therefore, none of the following was performed: site specific reconnaissance/property visit; Sanborn Maps; historical aerial photos and topographic maps; personal property owner interviews; search of a commercial CERCLA/RCRA/other local/state pollutants environmental database; City Directory.

The analysis performed in this report is instead based on the summarized environmental pollutant information found and gathered only from the California State Water Resources Control Board (SWRCB) internet "Geotracker" environmental database and from the LADUSACE Real Estate Division's disclosure of HTRW distressed property. This report only considers known project-area HTRW impacts from HTRW releases onto those properties/sites listed on the Geotracker database and from the real estate HTRW disclosure that may pose a threat to human health or the environment.

It is important to note that there may be unknown HTRW or pollutant impacts to the study area which were not fully disclosed and listed from Geotracker database or the LADUSACE Real Estate Division. These types of unknown HTRW impacts could also consist of newly discovered HTRW or buried historical type HTRW that is not observed on the land surface or not found from the Geotracker list. Newly discovered HTRW is sometimes encountered during the PED or future construction phases of work for a typical Civil Works project. Also, newly discovered HTRW can sometimes be derived from residual (leftover) forms of contamination existing within the soils, soil

vapor, air, surface water and groundwater media from releases of HTRW from known and listed HTRW sites. This occurs when undefined portions of the remaining known residual HTRW releases are encountered at known HTRW properties.

The HTRW analysis for this report focused on the known residual and active releases of HTRW into the adjacent property and environment within a ¼ mile distance of the study area. The analysis does not include evaluation of hazardous materials stored or used at or near the study area. Generally, hazardous materials are not considered part of HTRW impacts, unless or until they have been released to the environment, at which point they would be considered a hazardous substance or waste, according to CERCLA and RCRA. Further details on how hazardous materials, hazardous waste and hazardous substances are regulated by law and addressed in Federal and State or Local environmental regulations and laws.

3.0 HTRW SURVEY REPORT

The Lower Norco Bluffs project area is contained mostly along the bedrock bluffs along the eastern flood plain channel boundaries of the Santa Ana River behind Prado Dam. The current land use is a flood impoundment basin behind Prado Dam, a river floodplain and an open natural drainage basin of the Santa Ana River. The eastern perimeter of the river is bounded by medium to light industrial land use and heavy residential use and California State Highway 91 and U.S. Interstate 15 and the large properties of the CDC Rehabilitation and U.S. Navy Norco Sea Systems Command. The land use history of the study area indicates that HTRW impacts would be moderate primarily because of the light industrial activities.

A cursory review of the Geotracker environmental database and LADUSACE Real Estate Division HTRW disclosure was performed and listed HTRW sites (properties) of potential concern were judged as to their significance according to type of HTRW active/residual releases and their impacts to human health and the environment.

The listed sites/properties of concern were moved forward for recommendation for either a follow up ASTM Phase I or Phase II ESA HTRW survey. The Phase I ESA would include the full commercial environmental database review; historical topographic map and aerial map review; Sanborn Map and City Directory review; land/title search and could include a property owner interview and site visit as applicable. Low to medium impact RECs properties are typically not recommended for follow up Phase II ESA survey, but may require some additional monitoring, inspection and/or site visit or property owner survey.

The Phase II ESA site investigation is typically reserved only after conducting a full Phase I ESA. However, it could be implemented if RECs from the AAI screening are conclusively evident enough to preclude or skip the use of a Phase I ESA. In such case, the Phase II would involve additional steps of providing a field work plan and performing an actual environmental HTRW field site assessment. A Phase II site assessment would involve the collection and laboratory analysis of environmental samples to confirm the presence, extent and concentration of hazardous substances believed to have been released into the environmental media such as soil, sediment, groundwater, air and surface water.

3.1 Summary of Geotracker Environmental Database Search Listing and LADUSACE Real Estate Division HTRW Disclosure

The following table below shows the Geotracker listings and LADUSACE Real Estate Division’s disclosures of all known CERCLA/RCRA type environmental records and data from potential HTRW sites or properties, with addresses that could be mapped within approximately ¼ mile distance of the project study area. It contains only those listings that have HTRW impact to the project.

This search yielded a list of approximately two properties that are considered as having a potential HTRW impact to the project. Both of these properties have had releases of hazardous substances or other pollutants into the environment and were being managed as contaminated properties by environmental regulatory agencies of either the CA DTSC and/or RWQCB. Both of these properties have undergone previous HTRW investigations equal to either an ASTM Phase II or Phase I ESA. Both of the properties have also undergone some form of remedial action to reduce or remove the pollutants from the environment. Analysis of the releases, past and present and future property use indicates that one of the sites has more of a potential HTRW impact to the study project than the other site. One of the two is of low HTRW impact and the other is of high impact. The low HTRW impact property is the California Department of Corrections Rehabilitation Center. The high HTRW impact property is the U.S. General Service Administration open lot property. Both impacted HTRW properties are shown on Map Figure 1 at back of this report.

Table 1 Results of the Geotracker Database and LADUSACE Real Estate Division Disclosure/Search		
Database	Brief Database and/or Disclosure Description	Records Found
SWRCB and DTSC Geotracker	California Department of Toxic Substances Control and Santa Ana Regional Water Control Board Listed:	
LADUSACE Real Estate Division	<input type="checkbox"/> California Department of Corrections Rehabilitation Center, at the southwest corner of 5 th Street and Western Avenue, Norco, CA 91760. includes 6 LUST sites) (Low Impact) <input type="checkbox"/> U.S. General Services Administration open lot property at the west side corner of Corydon Avenue and 5 th Street, Norco Ca 91760 (High Impact)	1 1
Total Mapped and Listed Records Found		2

Further discussion of the results, project conditions and recommendations for this HTRW Survey Report are found in the following sections.

4.0 DISCUSSION OF THE GEOTRACKER ENVIRONMENTAL DATABASE AND LADUSACE REAL ESTATE DIVISION HTRW DISCLOSURE SITES THAT ARE IMPACTS

The Geotracker environmental database inquiry/search results reported within this HTRW Survey Report include one listed HTRW site total (Table 1). The LADUSACE Real Estate Division disclosure included one HTRW property total (Table 1). Both of these listed and mapped sites are properties with low and high HTRW impact or concern. This is because each property or site still has residual pollutants or hazardous substances that continue to remain a threat to the study project and both sites have been in open environmental regulatory file status and are still subject to ongoing enforcement by DTSC or SARWQCB. For these two properties, the past releases and residual pollutants consist specifically of a combination of fuel, solvents (VOCs), metals that exist as residual contamination in the surrounding groundwater and/or soils adjacent to these sites.

Of the two properties (sites), one is of high HTRW impact concern for the project, while the other is of low impact. The one high impact site is the GSA open lot property. The high impact ranking is given because this property has releases of petroleum and/or VOCs and/or metals to this property's groundwater and/or soils. This property poses a threat to the project, since it is in early active remedial status according to DTSC and SARWQCB records and its remediation is being managed by one or both of these regulatory agencies. Also one of the staging areas for the project directly overlies this property. The other site, the CDC Rehabilitation Center, is approximately 1,800 feet farther east from the project footprint. This site is also undergoing remediation of past releases of petroleum and/or VOCs and/or metals to its groundwater and soils. The remediation of the CDC property is also under active oversight of the DTSC and/or SARWQCB. The remediation at this property is advanced and well defined within this property's boundaries and poses a low threat to the surrounding environment. The discussion for the three medium impacted HTRW sites is as follows:

GSA Open Lot (High Impact): Releases of petroleum and/or VOCs and/or metals exist at this property as a result of past use by the owner and lessee. The HTRW releases have occurred primarily onto the surface and subsurface soils at this property. An ASTM Phase I and II ESA was conducted at this property by the GSA to determine the character and extent of the HTRW release. A follow up remediation plan and action for the release is currently being undertaken by GSA for this property. The DTSC and/or SARWQCB are performing review and oversight of the plan and action. This property is identified as one of the staging areas for the project and would be a significant impact to the project if used for this purpose. The staging area use will interfere with the ongoing remediation planned for this property by the GSA and would cause disturbance of the surface and/or subsurface soils which may cause further release of HTRW at this property.

CDC Rehabilitation Center (Low Impact): The HTRW contamination at the Rehabilitation Center is primarily a partially mapped plume of petroleum and/or VOCs and/or metals releases to groundwater and soils from six former leaking underground fuel storage tanks that were once part of maintenance and service buildings on the east end of this property. All six UST along with a limited amount of petroleum contaminated soil surrounding it were removed in the 1990s. A follow up site investigation consisting of soil and groundwater well installation and quarterly groundwater sampling occurred from the late 1990s to present. The site is actively undergoing remediation via

soil10 vapor extraction and long term groundwater monitoring and monitored natural attenuation. The status of the remediation is of low threat according to the SARWQCB. The remediation is actively being overseen by the DTSC and/or SARWQCB. The site is approximately 1,800 feet east of the project and the release is well monitored and has thus far been successfully contained within the property boundaries of the Rehabilitation Center. Because of this and the great distance to the project, it is a low HTRW impact to the project.

5.0 PROJECT IMPACTS

- The HTRW Impact is: There is one known high impact HTRW and/or hazardous substance and/or petroleum contaminant site to the project. The high impact site is the GSA open lot property. There is a significant potential of disturbance to the surface and subsurface soils at this site from the use of this property as a staging area for the project. Project staging use of this property would significantly interfere with ongoing investigation and remediation plans for this property by the GSA.

6.0 SUMMARY OF HTRW SURVEY REPORT

This report identifies two separate properties that are impacted by HTRW and contamination within 1/4 mile the study project. One of these properties is high HTRW impact to the project. The other is of low impact to the project.

The severity of threat to the project from both impacted HTRW sites exists is based solely on the Geotracker environmental database screening and record listing and the LADUSACE Real Estate Division HTRW disclosure that still shows residual petroleum/solvent and metals related contamination exists at each of these sites. A high HTRW impact to the project exists from the GSA open lot property because this property is identified as a staging area for the project. Significant disturbance and interference with ongoing investigation and remediation of HTRW releases of the environment at this property will occur if project staging activities are allowed to occur on this property.

A low HTRW threat to the project will occur from the CDC Rehabilitation Center property because it is 1,800 feet east of the project footprint and the HTRW releases at this property are well contained within this property's boundaries and are being successfully remediated.

7.0 RECOMMENDATIONS

The GSA open lot property is a high HTRW impact to the property and cannot be used as a staging area for this project. The CDC Rehabilitation Center property is a low HTRW impact to the project and is not further considered as a HTRW concern for the project. HTRW from the three medium impact listed HTRW sites/properties.

7.3 HTRW Environmental Compliance during Construction of Lower Norco Bluffs.

Prior to construction, the construction contractor will need to prepare a pollution prevention plan to reduce the potential for accidental release of fuels, pesticides, and other materials. This plan will include the designation of refueling locations, emergency response procedures, and definition or

reporting requirements for any spill that occurs. Equipment for immediate cleanup shall be kept at the staging area for immediate use. This plan will also include pesticide application activities such as storage, handling of herbicides, and application methods. This will be needed to reduce the potential for an accidental release of toxic materials from construction vehicles (e.g., oil and diesel fuel).

The pollution prevention plan must be added by the LADUSACE to the PED construction specifications as required submittal. This will ensure that the plan is included as part of the future study project construction activities. The plan should require the following: fueling and servicing of construction vehicles only in protected areas; the protected areas should be contained within an isolated or impervious area located a safe distance from the active flow path of the Santa Ana River or related surface waters; spills or leaks should be cleaned up immediately, reported properly and any contaminated soil should be disposed of properly.

Also, the plans and specifications should include a section describing the requirements for HTRW sampling and chemical testing and management of offsite import borrow sources of fill and/or soils for use as construction fill etc. The specifications should include detailed procedures for collection of soil samples and environmental chemistry laboratory testing according to the 2001 DTSC guideline for Clean Imported Fill Material. Sampling and testing should only be allowed to be undertaken for above ground ready to import stockpiles of soil.

Map Figure 1: Showing one low and one high HTRW impact Sites.



Map Figure 1. Two HTRW sites: GSA open lot property; CDC Rehabilitation Center property.

