LOWER DUNGENESS RIVER
SECTION 544
ECOSYSTEM RESTORATION

APPENDIX F

HAZARDOUS, TOXIC AND RADIOACTIVE WASTE

DRAFT Detailed Project Report and Environmental Assessment

US Army Corps
of Engineers®
Seattle District

DUNGENESS RIVER
ECOSYSTEM RESTORATION PROJECT

ENVIRONMENTAL SITE ASSESSMENT
PHASE I

January 2012

(Revised August 2012)

Prepared By

U.S. Army Corps of Engineers
Seattle District
Environmental Engineering & Technology Section

This page intentionally left blank

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACRONYMS & ABBREVIATIONS

ASTM	ASTM International
CBP	Customs and Border Protection
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERFA	Community Environmental Response Facilitation Act
CSCSL	Confirmed and Suspected Contaminated Sites Lists
DHS	Department of Homeland Security
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
F	Fahrenheit
FEMA	Federal Emergency Management Administration
FIRM	Flood Insurance Rate Map
FONSI	Finding Of No Significant Impact
HSL	Hazardous Sites List
LUST	Leaking Underground Storage Tank
NEPA	National Environmental Policy Act
NPL	National Priorities List
NRCS	National Resources Conservation Services
MOA	Memorandum of Agreement
OBP	Office of Border Patrol
PCBs	polychlorinated biphenyls
RCRA	Resource Conservation and Recovery Act
SHA	Site Hazardous Assessment
SWLF	Solid Waste Landfill, Incinerators, or Transfer Stations
TSDF	Permitted RCRA Treatment Storage, and Disposal Facilities
U.S.	United States
USACE	United States Corps of Engineers
UST	Underground Storage Tank
WDOE	Washington Department of Ecology

1.0 EXECUTIVE SUMMARY

The Seattle District of the United State Army Corps of Engineers (USACE) has completed a Hazardous, Toxic, and Radioactive Waste Report for the Dungeness River Restoration Project Area. The purpose of this HTRW report is to gather sufficient information about the project area supporting conclusions pertaining to human and ecological health risks.

A visual inspection of the property was conducted on January 12, 2012. Record reviews were completed before and after the field inspection. While the record review did not find any site that posed a risk to human or ecological health, the site inspections made several findings. It is very likely that both the Chang House and the Schneider Barn have been painted with lead paint at some point. This could potentially be the source for lead leaching around the parameter of the structure. Another finding is creosote treated telephone poles and corral fence timber located on the project site.

The Change House and Schneider Barn are planned for removal and products to be repurposed according to a Memorandum of Agreement (MOA) authored by USACE on 28 June, 2012. After removal of the buildings the area around the foundation's parameter needs to be tested for lead contamination. This would be at the discretion of the current property owner and should be completed before USACE Seattle District starts the construction phase.

It is recommended for the telephone poles located within the final project area to be removed completely from the ground and properly disposed of. If the project area includes restoration of the corral fence area, the fence timbers should also need to be removed. Since this is not a true HTRW issue, but more of proper housekeeping for the project site, it will be the responsibility of the Seattle District to coordinate the removal and disposal of the creosote timbers during the construction phase.

2 INTRODUCTION

2.1 Purpose

The purpose of conducting this hazardous toxic and radioactive waste (HTRW) investigation is to identify possible sources of contamination pathways existing within the project boundaries, see Figure 1 for general location and geographical extent of property. This project intended to restore this area of the Dungeness flood plan and the river's natural meandering process to historical conditions prior to local levee construction. Before doing so, one critical step is to evaluate the properties contained in the project boundaries for risk producers to either ecological or human health. While the project area is mostly pasture lands there are cluster of buildings in the northern and south western portion of the project area that need to be addressed.

2.2 Scope of Work

The scope of work for this HTRW Investigation Report draws upon items from the ASTM International (ASTM) Standard Practices for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E1527 - 05) and the HTRW Guidance for Civil Works Projects (ER 1165-2-132). The project effort includes the following tasks:

- Conduct a record search and review all reasonably attainable federal, state, and local government information and records to determine possible onsite sources of hazardous substances and environmental condition of the project area.
- Analyze historical prior use data of the Property and the surrounding area, including past known official documentation.
- Conduct a visual site inspection of the Property to identify possible hazardous substance sources
- Identify contamination sources using data gathered and evaluate the risk they could pose and the effect to the categorization of the environmental condition of the Property.
- Determine the condition of the Property.

3.0 SITE DESCRIPTION & PHYSICAL SETTING

3.1 Project Location

The Project area is located adjacent to the Dungeness River approximately one mile upstream from its outlet at Dungeness Bay on the Strait of Juan de Fuca, one mile north of the City of Sequim, in Clallam County, Washington (see Figure 1) under the zip code 98382. Figure 1 shows a preliminary project outline as the area for actual reclamation and construction has not been determined at the time of this report. The project area extends downstream from RM 1.75 to RM 0.9, just above Schoolhouse Bridge on Sequim-Dungeness Way County Road.

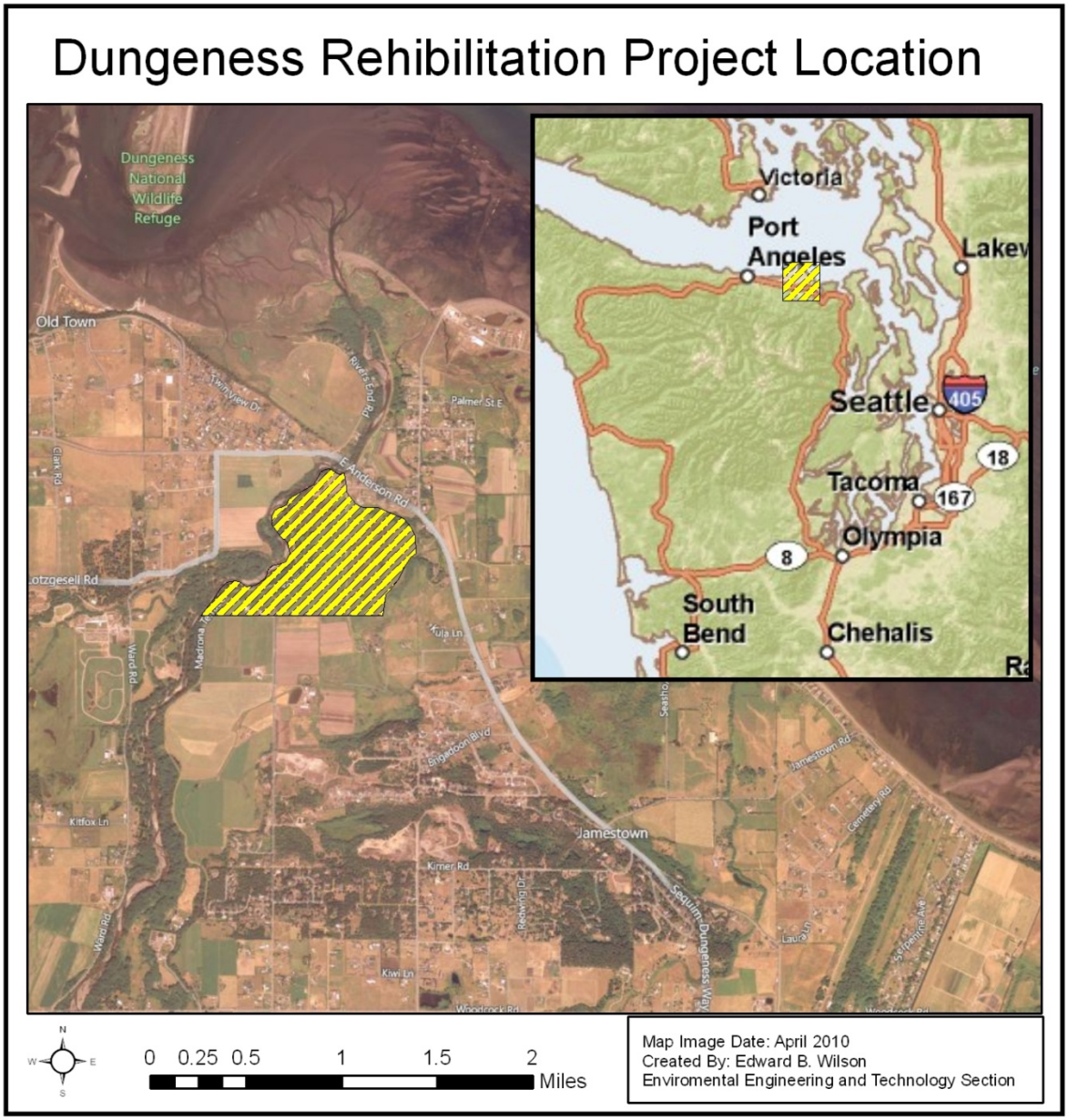

Figure 1 - Project Location

3.2 Site Description

The project area is currently split into two areas, west and east of Town Road. The West Project area is comprised of about 70 acres which consists of the levee, two structures, and currently unused pasture lands. The East side of the project area is comprised of about 45 acres consisting solely of unused pasturelands. During the site visit the soil was saturated to near saturation in most parts of the unproductive agriculture lands although no rain had occurred in the past 24hours. The north building site, identified as parcel 2510 on real-estate maps, has a pre-1900s house that has been deemed to be a historic structure. The south building site consists of a pre-1900s barn with grain silo that has been cleared out since the 2002 Phase I site assessment (Fisher & Associates, 2002).

4.0 ENVIRONMENTAL DATA BASE REVIEW

4.1 Regulatory Agency Databases Records Search

A search of *Standard Environmental Records Sources* as defined in ASTM E-1527 – 05 was performed to identify *Recognized Environmental Conditions.* Reviews of records related to the Property and nearby properties kept by both Federal and State regulatory agencies were conducted. This review was used to help identify known or potential sources of contamination that could adversely impact the Property. Table 1 provides a summary of the ASTM standard environmental records sources databases searched and corresponding radii and quantitative results of the record search corresponding to databases. Findings may be listed in more than one database.

Table 1 - Source Lists and Associated Number of Sites

Agency	List Acronym/ID	Description	Search Radius	Number of Sites Located
US EPA	NPL	National Priority List	1 Mile	0
USEPA	AFS	Air Facility System	1 Mile	0
WDOE	CSCSL	Confirmed & Suspect Contaminated Sites List	1 Mile	1
US EPA	CERCLIS	Sites Currently Under Review	1 Mile	0
US EPA	TSDF	Permitted RCRA Treatment, Storage, and Disposal Facilities	1 Mile	0
US EPA	CORRACTS	RCRA Corrective Actions	1 Mile	0
US EPA	RCRA	RCRA Registered Generators of Hazardous Waste	1 Mile	0
WDOE	LUST	Leaking Underground Storage Tank Sites	1 Mile	0
WDOE	SWLF	Permitted Solid Waste Landfills, Incinerators, or Transfer Stations	1 Mile	0
WDOE	UST	Regulated Underground Storage Tanks	Target Property	0

4.2 Known or Suspected Environmental Conditions

A site was identified under the Confirmed & Suspect Contaminated Sites List (CSCSL) with an address of 404 Rivers End Rd located ½ mile down river from the project boundaries. The contamination was characterized as petroleum in nature with soil and groundwater contaminated. Being that this site is downstream at a reasonable distance, and since the average elevation of the project area is above 25ft and the CSCSL site is less than 20ft above sea level, evidence suggests this is not a potential risk to the project area.

5.0 PROPERTY HISTORY

The history of the properties that comprise the project area was evaluated to identify past uses with the potential to adversely affect environmental conditions. Two existing reports were consulted for compiling the site history; (1) Fisher & Associates, 2002; and (2) DLH Environmental Consulting, 2003. Aerial photographs were compared to recent USGS Imagery dated 2012 to identify changes over the recent history of the site dating back to 1975.

Analysis of the aerial photographs suggests that most of the site remains undeveloped. Animals are seen on the site in the 1994 and 1997 photographs, most likely grazing stock animals, and the corral at the western end of the site is noticeable in the 1975 photograph. Property surrounding the project site is all pasture or agriculture land.

There are no historic records to suggest that any previous owners attempted any development on any of the subject properties, other than the use as a dairy farm, cattle ranch, and pasture lands (Fisher & Associates, 2002).

6.0 VISUAL RECONNAISSANCE

An environmental professional from USACE Seattle District conducted a visual reconnaissance of the Property on January 12, 2012. Photos taken during the site reconnaissance are displayed in this section. The purpose of the site visit was to identify visible indications of hazardous or potentially hazardous substances that were historically or currently used, generated, stored, or disposed of within, or near, the project boundaries. The reconnaissance included a walk around the project's perimeter and inspection of all accessible areas of the project site. A general visual reconnaissance of adjacent properties was conducted during this site visit but was restricted to what could be observed from public areas.

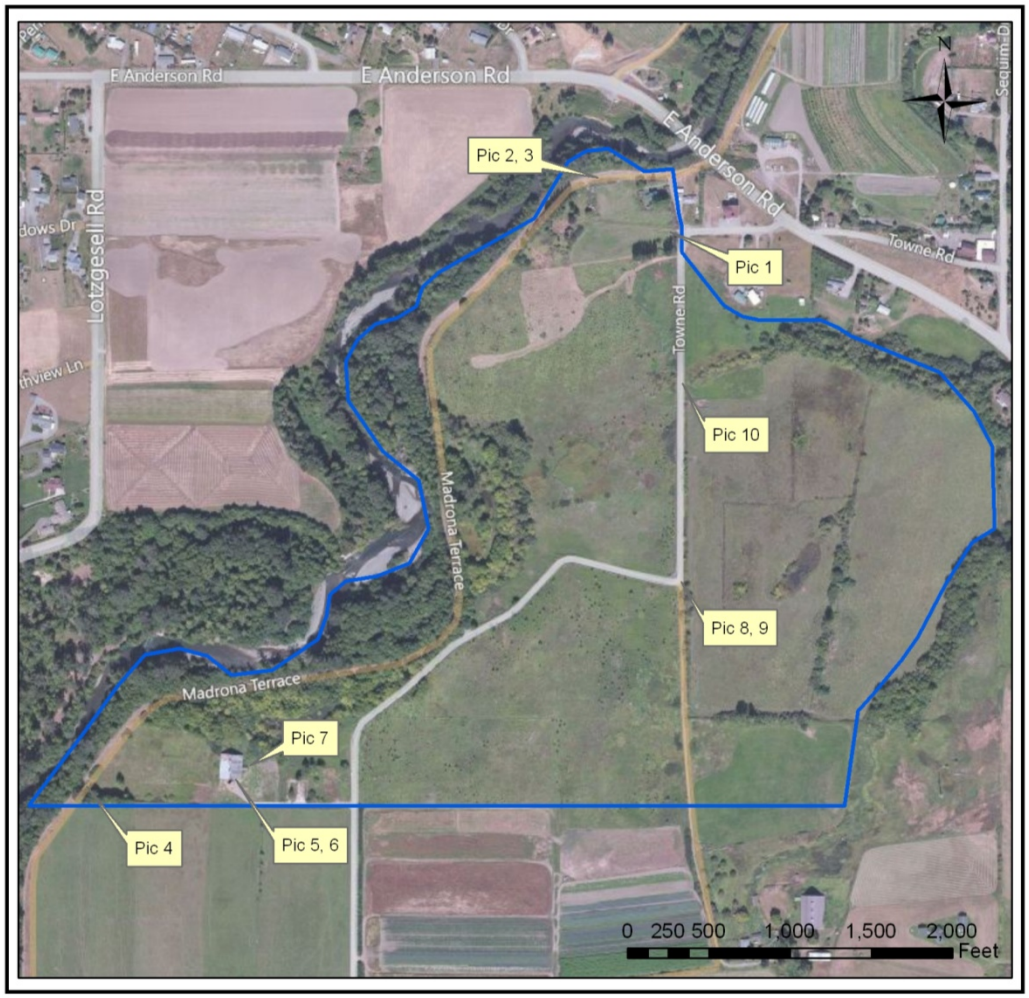

Figure 2 - map showing picture locations

Figure 2 shows the locations of the pictures that follow in this section. Picture 1 (Figure 3) shows the Chang House currently abandoned. Asphalt shingles can be seen along with white paint on some of the boards. An attempt to enter the house was not made but asbestos and lead is suspected.

Figure 3 - Photo 1, looking towards the Historic House

From the house the levee was walked and no significant finding were observed. Pictures 2 and 3 (Figures 4 and 5) show newly planted trees looking south west and south east respectively. White cones at the base of the trees are to protect from deer / grazing animals.

Figure 4 - Photo 2 looking south from levee

Figure 5 - Photo 3 looking south from levee

Figure 6 - Photo 4, Looking east towards the old barn

On the south side of the project area is the old barn, named the Schneider Barn, with grain silo (Figure 6). In photo 4 shows red marks on the roof. Before the 1970's, lead was often an additive in red pain and would suggest characterizing if the barn is to be demolished.

Additionally, if the paint contains lead then the soil around the barns foundation parameter should also be sampled.

Figure 7 – Photo 5, Inside the grain silo

Figure 8 - Photo 6, inside the barn. Notice the white paint on the lower interior slats

Inside the barn (Figure 8) white paint can be seen on the lower portion of the wooden slats. This could also contain lead and should be characterized if building is being demolished.

Figure 9 - Photo 7, inside old pump house

Figure 10 - Photo 8, base of telephone pole, notice the black creosote staining.

Figure 11 - Photo 9, Telephone Pole along Town Road, notice the black creosote staining at the base

Figure 12 - Photo 10, Old corral fencing along Town Road, Black Creosote staining over many of the surfaces

Many of the wooden timbers (Figures 10 – 12) have evidence of creosote treatment as was the standard practice to weatherize outdoor timbers for most of the last century. Creosote is a known carcinogen and will continue to leach into the soil. While the effects of this contamination is most likely localized around the timbers themselves, it is suggested that all treated timbers be removed within the restoration boundaries.

6.1 Buildings

No visibly stained soil, stressed vegetation, or other evidence of surface contamination indicating disposal of hazardous substances, or improper use or storage of hazardous materials was observed on the ground along the edges of the property. The following observations of hazardous or potentially hazardous substances were found exterior from the historic house shown in photo 1 (Figure 3):

- Asphalt Shingle covering part of the roof showing renovations / improvements have been made. This could have introduced asbestos and lead containing materials to the structure.
- Paint on the exterior most likely contains lead. Reason for this is it is likely the house was updated during the period house hold paints commonly contained lead. Other renovations that cannot be seen from the exterior will also likely contain lead and or asbestos but no determination can be made at this point.

For the old barn shown in picture 5 and 6 the following observations were made:

- Interior is clean; however, some white paint is present on the lower interior walls extending up to 15 feet in places. Paint could contain lead.
- Roof looks like it was painted at one time with red paint and could be a source of lead contamination.

6.2 Infrastructure

Telephone poles shown in pictures 8 and 9 are found in the project area along Town Road. Of significance is the creosote staining found on the bottoms of the poles and the treated timbers of the corral shown in picture 10. Creosote can leach from the treated timbers and could be a detriment to the immediate local ecology if left as is .

6.3 Potential for Contamination from Adjacent Properties

No visibly stained soil, stressed vegetation, or other evidence of surface contamination indicating disposal of hazardous substances, or improper use or storage of hazardous materials was observed from what could be seen on adjacent properties.

7.0 SUMMARY OF FINDINGS AND CONCLUSIONS

This HTRW report has found several ecological and human health risk pathways within the project boundaries. Since the design of project has not been identified, the conclusions are given in sections and should only be significant if the final design of the project includes those sections.

7.1 Historic House

This structure is to be demolished and materials reclaimed according to a MOA authored by USACE dated 28 June, 2012. It is suggested that a Hazardous Material Survey that includes sampling of the drip line around the structure for lead contamination. This will allow for appropriate debris separation for disposal. This would be at the discretion of the current property owner and should be completed before the Seattle District starts the construction phase.

7.2 Old Barn

From the age of the structure and the paint on both the roof and interior walls, a Hazardous Material Survey is recommended to survey the interior and exterior of the structure. This will be a relatively simple survey since the building has relatively few differing surfaces. Similar to historic house recommendation, soil samples around the drip line of the structure would determine the extent, if any, of lead soil contamination. This would be at the discretion of the current property owner and should be completed before the Seattle District starts the construction phase.

7.3 Creosote Timbers

It is recommended for the telephone poles located within the final project area to be removed completely from the ground and properly disposed of. If the project area includes restoration of the corral fence area, the fence timbers should also need to be removed. Since this is not a true HTRW issue, but more of proper housekeeping for the project site, it will be the responsibility of the Seattle District to coordinate the removal and disposal of the creosote timbers during the construction phase.

REFERENCES

ASTM International.2005. E 1527 - 05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process

DLH Environmental Consulting (2003, March). *Phase I – Environmental Site Assessment, Kaiser Property.* Prepared for Washington State Department of Fish and Wildlife.

Environmental Protection Agency. (n.d.). *Envirofacts (Internet Reporting).* Retreved January 8, 2012, from http://www.epa.gov/enviro/index.html

ER 1165-2-132 (1992, June). *Hazardous, Toxic and Radioactive Waste (HTRW) Guidance For Civil Works Projects. U.S*. Army Corps of Engineers, Washington D.C.

Washington State Department of Ecology. (n.d.). *Integrated Site Information System (internet Reporting)*. Retrieved January 8, 2012, from ISIS Web Reporting: https://fortress.wa.gov/ecy/tcpwebreporting/Default.aspx

Fisher & Associates, LLC (2002, April). *Phase I Environmental Site Assessment, Schneider Property, Dungeness Washington*. Prepared for Washington Department of Fish and Wildlife.