



Appendix E
Transportation Plan

APPENDIX E

TRANSPORTATION PLAN

**Trailer Disposal and Former Debris Areas
Rancho Corral de Tierra
Moss Beach, San Mateo, County, California**

TABLE OF CONTENTS

1.0 INTRODUCTION..... 1

1.1 Site Description and History..... 1

1.2 Regulatory Status..... 2

1.3 Purpose and Objectives 2

1.4 Nature and Extent of Contamination..... 2

2.0 CHARACTERISTICS OF MATERIAL TO BE TRANSPORTED..... 2

2.1 Excavated Soil Characteristics 2

2.2 Liquid Waste Characteristics..... 3

2.3 Other Waste Characteristics 3

3.0 DESTINATION OF MATERIAL TO BE TRANSPORTED..... 3

3.1 Soil Management..... 3

3.2 Liquid Waste Management..... 4

3.3 Other Waste Management 5

4.0 TRUCK TRANSPORTATION 5

4.1 Transportation of Soil..... 5

4.2 Transportation of Liquid Waste..... 5

4.3 Transportation of Other Waste 5

5.0 TRANSPORTATION ROUTES 6

5.1 Local Transportation Routes 6

5.2 Route to Disposal Facilities..... 7

6.0 TRAFFIC CONTROL AND LOADING PROCEDURES 7

6.1 Traffic Control On- and Off-Site..... 7

6.2 Traffic Control During Loading 8

7.0 RECORD KEEPING..... 9

8.0 HEALTH AND SAFETY 10

9.0 CONTINGENCY PLAN 11

9.1 Steps Required For All Accidents 11

9.2 Steps for Spills of Diesel Fuel, Hydraulic Fluid, or Other Automotive Fluid(s) 12

9.3 Steps for Spills of Other Chemicals 12

9.4 Loading and Unloading 13

10.0 REFERENCES..... 13

APPENDIX E

TRANSPORTATION PLAN

Trailer Disposal and Former Debris Areas Rancho Corral de Tierra Moss Beach, San Mateo, County, California

TABLE OF CONTENTS

FIGURES

- E-1 Site Location, Moss Beach Ranch
- E-2 Local Transportation Routes
- E-3 Routes to Disposal Facilities

1.0 INTRODUCTION

This Transportation Plan (“Plan”) addresses the Trailer Disposal and Former Debris Areas at Moss Beach Ranch of the Rancho Corral de Tierra property, located in Moss Beach, San Mateo County, California (these areas are referred to as the “Site,” see Figure E-1). Erler & Kalinowski, Inc. (“EKI”) has prepared this Plan for our client, the Peninsula Open Space Trust (“POST”) to describe the general traffic control and waste transportation procedures that will be employed during implementation of the *Removal Action Workplan* (“RAW”) (EKI, 2012) for Site. The RAW entails excavation and off-Site disposal of impacted shallow soils at a permitted disposal facility. POST will select a licensed remediation contractor (“Contractor”) to implement the RAW.

This Plan is prepared consistent with the California Environmental Protection Agency (“Cal-EPA”) Department of Toxic Substances and Control (“DTSC”) Guidance Document, *Transportation Plan - Preparation Guidance for Site Remediation* (“DTSC Guidance Document”; Cal-EPA, 2001).

The Contractor selected by POST to perform the soil excavation and disposal activities at the Site will be required to prepare an addendum to this Transportation Plan that specifies: (1) the actual off-Site disposal facility and the transportation routes if actual disposal facility vary from facility listed in this Transportation Plan, (2) the Contractor’s selected transportation company, and (3) any proposed deviations from procedures specified in this Transportation Plan. The Contractor will implement the procedures documented in this Transportation Plan as well as the Contractor’s addendum to this Plan. EKI and POST will verify that the Contractor implements this Transportation Plan and the Contractor’s addendum to this Plan.

1.1 Site Description and History

The Trailer Disposal and Former Debris Areas are located on the Moss Beach Ranch portion of the Rancho Corral de Tierra property in Moss Beach, San Mateo County, California. Moss Beach Ranch is a working equestrian facility, located approximately half a mile down an unpaved driveway off of Etheldore Street. The areas are situated approximately 150 feet apart, on either side of San Vicente Creek. The Trailer Disposal area is located behind a trailer home, approximately 40 feet west of San Vicente Creek. The Former Debris Area is located approximately 110 feet east of San Vicente Creek in an open field used for parking and equestrian activities.

The Rancho Corral de Tierra property ownership was transferred from POST to the National Park Service (“NPS”) in December 2011. EKI understands that the NPS is in the process of transforming the area into a park, as a part of the Golden Gate National Recreation Area and that Moss Beach Ranch will continue to operate as an equestrian facility.

1.2 Regulatory Status

The NPS is serving as the Lead Agency responsible for oversight of the cleanup of soil at the Site. POST has retained responsibility for the removal of contaminated soil at the Site per the First Amendment to Corporate Offer to Purchase Real Property, dated 19 October 2011. POST or EKI will confer with the NPS for review and approval of this Transportation Plan and the Contractor's Site-specific addendum.

1.3 Purpose and Objectives

The purpose of the Transportation Plan is to describe the general procedures and protocols to minimize potential health, safety, and environmental risks resulting from the transportation of material and/or equipment to off-Site disposal facilities during soil excavation activities at the Site.

1.4 Nature and Extent of Contamination

Previous environmental investigations have found that the chemicals of concern ("COCs") in soil at the Site are zinc, endrin, and total petroleum hydrocarbons ("TPH"). The maximum zinc concentration detected in soil at the Site is 1,130 milligrams per kilogram ("mg/kg"). The maximum endrin concentration detected in soil is 0.00511 mg/kg. The maximum detected concentrations of TPH as diesel and as motor oil is 42,000 mg/kg and 60,000 mg/kg, respectively. The EKI Site-specific Health and Safety Plan ("HSP") in Appendix K of the RAW describes the associated potential chemical hazards.

2.0 CHARACTERISTICS OF MATERIAL TO BE TRANSPORTED

This section describes the waste characteristics of materials to be disposed of by the Contractor during implementation of the RAW.

2.1 Excavated Soil Characteristics

Cleanup activities at the Site will result in excavation of approximately 265 tons of soil that will be disposed of at off-Site disposal facilities. Based on available soil analytical and waste characterization data, it is anticipated that all of the excavated soil will be disposed of as non-hazardous Class II waste. The nature of contaminants in Site soil is described above in Section 1.4.

It is assumed that permitted land disposal facilities will be contacted by the Contractor prior to the commencement of excavation activities. The Contractor will coordinate with permitted land disposal facilities to determine available capacity and acceptability of the excavated soil based on available data. In general, excavated soils are planned to be directly loaded and off-hauled from the site without stockpiling.

2.2 Liquid Waste Characteristics

The liquid waste to be transported from the Site may include water from decontamination activities or groundwater if encountered during the excavation. This decontamination water may include some or all of the compounds found in soil. Liquid wastes will be characterized by the Contractor for disposal prior to off-Site transportation and disposal.

It is not anticipated that the Contractor will need to dewater the excavations. Accumulated liquid wastes from the temporary on-Site sanitation facilities will also be periodically removed from the Site by a licensed contractor.

2.3 Other Waste Characteristics

Other waste generated at the Site may include buried debris from the Trailer Disposal Area. Generally debris observed in the Trailer Disposal Area during sampling included materials such as household trash, asphalt, wood, and wire. Larger items such as a rusted barrel and corrugated metal were also observed. No buried debris was observed during sampling at the Former Debris Area.

Buried corrugated metal was discovered in an area of the Trailer Disposal Area. The metal had been painted and the paint was observed to be flaking off into the soil; EKI collected a sample of the flaking paint and submitted it for lead analysis. The paint sample contained lead at a concentration of 4,430 mg/kg. It is anticipated that the corrugated metal and associated lead-based paint chips will be segregated from soil spoils, placed on plastic sheeting (minimum 10-mil thickness) for temporary storage, and disposed of offsite as lead-containing construction debris.

3.0 DESTINATION OF MATERIAL TO BE TRANSPORTED

This section describes where the material generated during implementation of the RAW at the Site could potentially be disposed. The actual selected off-Site disposal facilities will be provided by the Contractor in a Site-specific addendum.

3.1 Soil Management

Transportation and disposal information for off-Site disposal presented herein is based on information provided by Allied Waste and Waste Management, Inc. Prior to performing the soil excavation work, it is recommended that the Contractor facilitate pre-approval of waste classifications by the landfills that will be accepting the soil for disposal. POST and NPS will approve the selected landfills from the options provided in the Contractor's proposal.

Soil characterized as non-hazardous Class II waste may be disposed of at the following off-Site disposal facilities or another permitted off-Site disposal facility as proposed by the Contractor:

1. Allied Waste – Keller Canyon Disposal Facility (U.S. EPA ID 110001163053)
901 Bailey Road, Pittsburg, California, 94565 (925) 625-4711
2. Waste Management, Inc. – Altamont Landfill (U.S. EPA ID 110000831404)
10840 Altamont Pass Rd, Livermore, California, 94551 (800) 449-6349
3. Republic – Vasco Road Landfill (U.S. EPA ID 110009544671)
4001 North Vasco Road, Livermore, CA 94551 (925) 4470491
4. Allied Waste – Forward Inc. Landfill (U.S. EPA ID 110000610116)
1145 W. Charter Way, Stockton, CA 95206 (800) 204-4242
5. Waste Management, Inc. – Kettleman Hills Facility (U.S. EPA ID
CAT 000 646 117) 35251 Old Skyline Road, Kettleman City, CA 93239 (559)
386-9711

Material characterized as Class III solid waste may be disposed of at the following off-Site disposal facility or another permitted off-Site disposal facility as proposed by the Contractor:

1. BFI – Los Trancos Canyon (Ox Mountain) Landfill
12310 San Mateo Road, Half Moon Bay, CA 94019 (650) 726-1819

Prior to performing the soil excavation work, the Contractor will confirm the waste classifications and profiles with the facilities that will be accepting the soil for disposal.

3.2 Liquid Waste Management

Any groundwater and decontamination water generated at the Site will be collected in appropriate holding tanks and sampled by the Contractor to evaluate the appropriate subsequent management. Liquid wastes will be trucked to permitted off-Site disposal facilities.

Wastewater characterized as non-hazardous Class II waste may be disposed of at the following off-Site disposal facilities or another permitted off-Site disposal facility as proposed by the Contractor:

1. Seaport Environmental
700 Seaport Blvd, Redwood City, California, 94063 (650) 264-1024
2. Waste Management, Inc. – Kettleman Hills Facility
35251 Old Skyline Road, Kettleman City, California (559) 386-9711

On-Site temporary sanitation facilities, if provided by the Contractor, will be periodically evacuated and the removed materials transported to the local wastewater treatment facility or other appropriate disposal facility for portable toilet wastes.

3.3 Other Waste Management

Non-hazardous waste such as general trash, concrete, asphalt, rock, and other non-hazardous demolition debris may be disposed of at a local municipal waste landfill as proposed by the Contractor or if applicable, may be recycled at an off-Site recycling facility as proposed by the Contractor.

4.0 TRUCK TRANSPORTATION

This section describes how soil spoils, trash, and other material requiring off-site disposal generated during implementation of the RAW for the Site will be transported from the Site to the off-Site disposal location.

4.1 Transportation of Soil

Excavated soil will be loaded into trucks such as end dump trucks and will be transported to the appropriate off-Site disposal facility via surface streets and highways. The Contractor will select the transporter for excavated soil. The Contractor will be required to submit proof of the transporter's valid hauler registration. The Contractor will ensure that all vehicles utilized for transport of hazardous waste are properly registered, operated, and placarded (if necessary) in compliance with local, state, and federal requirements. All drivers shall be required to be able to provide proof of a valid driver's license and evidence of insurance. Although no hazardous waste is anticipated to be generated based on the available data, hazardous waste (if any) will be accompanied by federal Uniform Hazardous Waste Manifests.

Assuming 265 tons of soil are excavated, and each truck carries approximately 20 tons per load, an estimated 14 truckloads of soil will leave the Site. Depending on the destination, available trucks, excavation rate (for direct load), and traffic conditions, the project could likely have about three trucks per day leaving the Site for approximately five days.

4.2 Transportation of Liquid Waste

If required, wastewater will be transported to the appropriate off-Site disposal facility via surface streets and highways in 5,000-gallon tanker trucks, or other appropriately sized vehicle for transportation of liquid waste. The Contractor will select the transporter for wastewater.

4.3 Transportation of Other Waste

All non-hazardous waste (e.g., general trash, concrete, asphalt, rock, etc.) will be transported in appropriate covered transfer trucks and disposed off-Site at a local municipal waste landfill or, if applicable, will be recycled at an off-Site recycling facility as proposed by the Contractor.

5.0 TRANSPORTATION ROUTES

This section describes the routes that material generated during implementation of the RAW for the Site may take during transportation from the Site to the off-Site disposal locations. As discussed in Section 3.0, the actual selected off-Site disposal facilities will be provided by the Contractor. If the Contractor's selected disposal facilities vary from those listed in Section 3.0, the Contractor will also provide transportation route maps to the selected disposal facilities in the Site-specific addendum, as described in Section 1.0.

The trucking around the Site would likely be conducted between the hours of 7:30 am and 4:30 pm. A list of emergency service organizations is included in the table below.

Emergency Contact Agencies along Transportation Routes

Agency	Contact Phone Number
California Highway Patrol	911 (on cellular phone)
National Park Service Emergency Center	(415) 561-5505
San Mateo County Sheriff	(650) 216-7676
California Department of Transportation	(510) 286-4444 District 4 (Bay Area) (209) 948-7543 District 10 (Stockton) (559) 488-4348 District 6 (Fresno)

If an accident occurs on the Moss Beach Ranch property, Rich Allen (Moss Beach Ranch) should additionally be notified at (650)728-0700.

5.1 Local Transportation Routes

The proposed local transportation routes from and to the Site are shown on Figure E-2 and described below. There are no known schools or other sensitive use sites between the site and the freeways used to transport these wastes.

Route from the Site to California State Route 92 East:

- Turn left onto Etheldore Street, head southeast
- Turn left onto California State Route 1 (Cabrillo Highway; Pacific Coast Highway)
- Turn left onto California State Route 92 East (San Mateo Road)

Route from California State Route 92 West to the Site:

- Head southwest on California State Route 92
- Turn right onto California State Route 1 (Cabrillo Highway; Pacific Coast Highway)

- Turn right onto Etheldore Street
- Turn right onto driveway into Site (Moss Beach Ranch)

5.2 Route to Disposal Facilities

The following are possible routes to the disposal facilities from the Site:

- Allied Waste’s Forward Landfill – From California State Route 92 East, take Interstate 880 North, East to Interstate 580 to Stockton.
- Allied Waste’s Keller Canyon Landfill – From California State Route 92 East, take Interstate 880 North, take Interstate 580 East, take Interstate 680 North and Highway 4 to Pittsburg.
- Donald M. Somers Water Pollution Control Plant – From California State Route 92 East, take Highway 101 South, take California State Route 237 East, take exit for Caribbean Drive, turn left onto Borregas Avenue.
- Republic’s Vasco Road Landfill – From California State Route 92 East, take Interstate 880 North, East to Interstate 580 to Stockton.
- Seaport Environmental – From California State Route 92 East, take Highway 101 South to the Seaport Boulevard exit in Redwood City.
- Waste Management’s Altamont Disposal Facility – From California State Route 92 East, take Interstate 880 North, East to Interstate 580 to Livermore.
- Waste Management’s Kettleman Hills Disposal Facility – From California State Route 92 East, take Highway 101 South, take California State Route 152 East to Interstate 5 South.

Potential routes to the possible disposal facilities in California are shown on Figure E-3.

6.0 TRAFFIC CONTROL AND LOADING PROCEDURES

This section describes the traffic control and loading procedures to be carried out by the Contractor during implementation of the RAW for the Site. The Contractor shall comply with all local sound control and voice level rules, regulations and ordinances which apply to any work performed.

6.1 Traffic Control On- and Off-Site

The Contractor will be required to provide a safe and convenient passage of public traffic in the vicinity of the Site during soil excavation activities. In order to reach the Site from the nearest public road (Etheldore Street), trucks must travel a long unpaved driveway, which is shared by Moss Beach Ranch visitors and staff. This driveway may not be

wide-enough to accommodate two-way traffic. At a minimum, the Contractor will take the following steps before initiating the soil excavation:

- Determine the location and type of signage before work begins for the project;
- Determine methods and equipment the Contractor will use for flagging and controlling one-way traffic, as necessary;
- Note the various traffic control devices specified to be used – some of these devices will require certificates of compliance; and
- Ensure flaggers are trained in accordance with the Manual on Uniform Traffic Control Devices (“MUTCD”) and MUTCD CA *Supplement* and the *Construction Safety Orders*.

Traffic control procedures that may be used during vehicle entrance to and exit from the Site include signs and a flag person. As appropriate, the flag person will slow or stop traffic on Etheldore Street or the unpaved driveway as trucks exit the Site. If necessary, the Contractor will close lanes in a manner that conforms to California Department of Transportation requirements.

6.2 Traffic Control During Loading

The Contractor will control work area entry of unauthorized personnel. All visitors to the Site who enter the defined work areas will be requested to sign the daily log maintained by the Contractor and will be advised of the potential health hazards associated with the excavation activities. Non-essential and non-certified individuals will be directed away from the work areas. The work zone boundary will be demarcated with orange cones or other visible delineation, such as fencing.

Soil will be loaded into trucks using an excavator, backhoe, or front-end loader. Loading will occur adjacent to the excavation area (or stockpile, if present). Based on the existing data, excavation areas will not extend below the water table into the saturated zone. In loading the trucks for off-Site transportation of excavated soil, control measures will be employed as necessary to prevent the generation of free water during transport in the unlikely event that soil from the saturated zone is excavated. Soil excavated from the saturated zone will be drained to the greatest extent feasible within the excavation prior to loading the soil for off-Site transportation, and if necessary, adsorbent material such as kitty litter could be added to reduce the overall moisture content prior to departure from the Site.

Prior to departure, trucks will be covered with tarps to prevent the release of dust once the trucks leave the Site. After loading, all impacted materials will be removed prior to the trucks leaving the work area following the procedures established in the Decontamination Plan (see Appendix F). The actual loading, turn around, and decontamination locations will be determined by the Contractor in the field based on Site conditions at the time of the work, and in coordination with the NPS and the property

tenant. While on-truck axle scales may be used as an indication of truck weight capacity, all trucks conveying waste will be weighed on certified scales at the off-Site disposal facility. In addition, trucks will stop, as required, at any and all state-operated weigh stations en route to their designated off-Site disposal facility.

After covering the load, the trucks will proceed to the decontamination pad. Following decontamination, trucks will exit the Site via the unpaved driveway to Etheldore Street. The location of the decontamination pad will be determined by the Contractor based on staging of excavation activities.

The following traffic control measures that will be addressed by the Contractor are described below. Specific means and methods will be determined by the Contractor within the guidance of the specifications, and may be adjusted in the field to address unforeseen conditions.

- Traffic control will comply with San Mateo County requirements, as well as the current version of the California Manual on Uniform Traffic Control Devices, prepared by the California Department of Transportation;
- Loading will occur adjacent to the excavation area (or stockpile, if present);
- Prior to entering the decontamination area, the loads will be covered with tarps by personnel with appropriate health and safety training;
- Decontamination will be conducted on-Site in accordance with the Decontamination Plan (Appendix F of the RAW);
- Tarps will be employed to seal/cover cargo containers prior to departure from the Site to prevent the release of dust, debris, or hazardous wastes/substances during transport; and
- Prior to leaving the Site, the Contractor will inspect each vehicle to ensure proper loading, covering/sealing, decontamination, placarding (if required), and manifesting has been implemented.

7.0 RECORD KEEPING

The Contractor will maintain daily field logs. Each daily log will include the date, time, weight/volume, waste/material, trucking company, driver, and vehicles used for each trip. Daily field logs will be prepared by hand or on laptop computer in the field at the time of performance, showing:

- Truck Identification and Company.
- Time scheduled in, or arrival upon return.
- Manifest Number.

- Waste type loaded and area removed from.
- Estimated waste quantity entered on manifest.
- Time departed from the Site.

Soil that is classified as non-hazardous waste will be accompanied by a bill of lading to track shipment. If any soils are classified as RCRA hazardous waste or non-RCRA California hazardous waste, the soils will be accompanied by a Uniform Hazardous Waste Manifest that will be signed by both the transporter and a representative of POST that is authorized to sign hazardous waste manifests.

All manifests and shipping documents will be carried in the truck cab within reach of the driver in accordance with U.S. Department of Transportation regulations. Other documents furnished to the driver with each load will include either a map or driving directions specifying the approved transportation routes. Upon arrival at the Site, new drivers will be furnished a check-list summary of this Transportation Plan and will receive a health and safety briefing as described in Section 8.0. A copy of the Transportation Plan will also be available at the Site.

8.0 HEALTH AND SAFETY

The Contractor shall implement a Site-specific health and safety plan (“HSP”), as applicable to transportation personnel. At a minimum, the HSP will include the following:

- All workers should be properly trained in hazardous waste operations in accordance with 29 CFR 1910.120 and CCR Title 8 Section 5192;
- State the type of health and safety training that will be provided to Site personnel and vehicle operators;
- Describe what the transportation personnel will and will not be permitted to do, based on training, during loading;
- Discuss how the health and safety plan will be communicated to drivers (e.g., tailgate meetings) and how the plan will be enforced; and
- Describe notification procedures and contingency plans for accidents or breakdowns en route.

Site personnel will be qualified and trained in accordance with the requirements of the Contractor’s Site-specific HSP. All personnel will receive a Site-specific orientation on the physical and chemical hazards anticipated to be present in the wastes they may be potentially exposed to or work with in the course of assigned job duties.

9.0 CONTINGENCY PLAN

This contingency plan is prepared for chemical spills and other accidents that may occur with transport vehicles on-Site or in transport between the Site and off-Site disposal facilities. It is also applicable for vehicles delivering construction material, outside services, and supplies. It addresses the steps that need to be followed for all accidents as well as several accident-specific steps. For informational purposes, copies of this plan will be provided to drivers carrying hazardous waste (if any) excavated from the Site. It is the responsibility of the transportation contractor to notify the appropriate emergency service organizations prior to the transportation of hazardous wastes through their areas.

Due to the different factors that could impact any off-Site spill scenario, it is not appropriate to describe specific spill mitigation procedures in this document. The following is a list of possible steps that should be taken in the event of an off-Site release:

- If possible, stop vehicle safely, move off roadway, and isolate vehicle and load (place traffic cones and keep observers from the area) to prevent additional accidents.
- Survey the situation, identify any injured parties, and determine immediate cause and potential implications (e.g., wind direction, potential receptors, etc.).
- Call for emergency assistance by dialing 911.
- Report incident using the 24-hour emergency contact information included on the hazardous waste manifest.
- Report incident to State of California Office of Emergency Services by contacting the California State Warning Center (800-852-7550).
- Assist any injured personnel.
- If possible, contain spills of contaminated material.
- Contact NPS Dispatch service (415-561-5505).
- Complete incident report.

9.1 Steps Required For All Accidents

- Secure the area of vehicles and spill, if appropriate. If possible, stop vehicle safely off roadway to avoid additional accidents.
- Assist any injured personnel.
- Assess severity of accident and call 911 for emergency assistance as appropriate.

- Pursuant to U.S. Department of Transportation Regulations 392.22 to 392.25, place at appropriate location(s) traffic control device(s). It is recommended that flame-producing signals not be used. Keep fire, flames, lighted cigarettes, cigars, and pipes away from the scene.
- Notify the Contractor and the transportation company's operations manager or designee. The transportation company's operations manager or designee will communicate with Contractor and coordinate response with appropriate agencies.

9.2 Steps for Spills of Diesel Fuel, Hydraulic Fluid, or Other Automotive Fluid(s)

- Contain the spill and prevent liquid from draining onto roadways, sewers, storm drain, or streams.
- If needed, add protection around drains and sewer inlets.
- Notify Contractor Site Superintendent and transportation company supervisors.
- The transportation company supervisor will provide guidance on the notification of:
 - California Highway Patrol
 - Local Police and Fire Departments
 - Local Consolidated Unified Permitting Agency ("CUPA")
 - U.S. Coast Guard and other spill notification agencies
- If on the work site, Contractor will implement cleanup procedures; subcontractors and suppliers must follow their own procedures regarding conducting cleanup for spills on public roads and non-Site private properties.
- Wear personal protective equipment as outlined in the Contractor's Site-specific HSP (Section 8.0).

9.3 Steps for Spills of Other Chemicals

- Contain the spill, prevent liquid from draining onto roadways, sewers, storm drain, or streams.
- If needed, add protection around drains and sewer inlets.
- Notify Contractor Site Superintendent and transportation company supervisors.
- The supervisor will provide guidance on the notification of:
 - California Highway Patrol
 - Local Police and Fire Departments
 - Local CUPA
 - U.S. Coast Guard and other spill notification agencies

- Refer to shipping papers to determine the name and hazard classes of the chemicals. Give this information to any first responders. Advise fire department if the chemical is water reactive.
- Where appropriate, Contractor employees may conduct cleanups. This will be done using personal protective equipment as outlined in the Contractor's Site-specific HSP (Section 8.0).

9.4 Loading and Unloading

The vehicle driver is responsible for ensuring that materials are safely loaded and unloaded from the driver's vehicle. This responsibility will include, but is not limited to:

- Making certain that the loading and dumping conditions are safe.
- Ensuring that each load is evenly distributed through the trailer.
- Determining that the ground for loading and unloading is stable - do not unload on uneven or unstable ground.
- Determining that the wind conditions and vehicle direction relative to the wind are appropriate – do not dump during heavy crosswinds.
- Ensuring that there are no obstacles at the dump locations – do not dump when adjacent to another vehicle.
- Ensuring that locks on tailgates have been released prior to dumping and suspensions are set properly. Pay close attention to the vehicles and pedestrians at all locations.

10.0 REFERENCES

Cal-EPA, 2001. *Transportation Plan - Preparation Guidance for Site Remediation, Interim Final*, California Environmental Protection Agency, Department of Toxic Substance Control, December 2001, available at:
www.dtsc.ca.gov/HazardousWaste/Transporters/upload/SMB_Transportation-Plan.pdf.

EKI, 2012. *Draft Removal Action Workplan, Trailer Disposal and Former Debris Areas Rancho Corral de Tierra, Montara, San Mateo, County, California*, Erler & Kalinowski, Inc., October 2012.



Notes:

1. All locations are approximate.
2. Basemap source: The Thomas Guide Digital Edition, State of California, 2003/2004.

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Site Location
Moss Beach Ranch

Rancho Corral de Tierra
Moss Beach, CA

October 2012
EKI B10014.01

Figure E-1



0 1500 3000



(Approximate Scale in Feet)

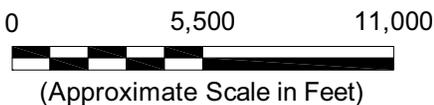


Legend:

 Truck Route from Site to Highway 92 East

Notes:

1. All locations are approximate.
2. Basemap source: Google Earth Pro, date of imagery 31 October 2011.



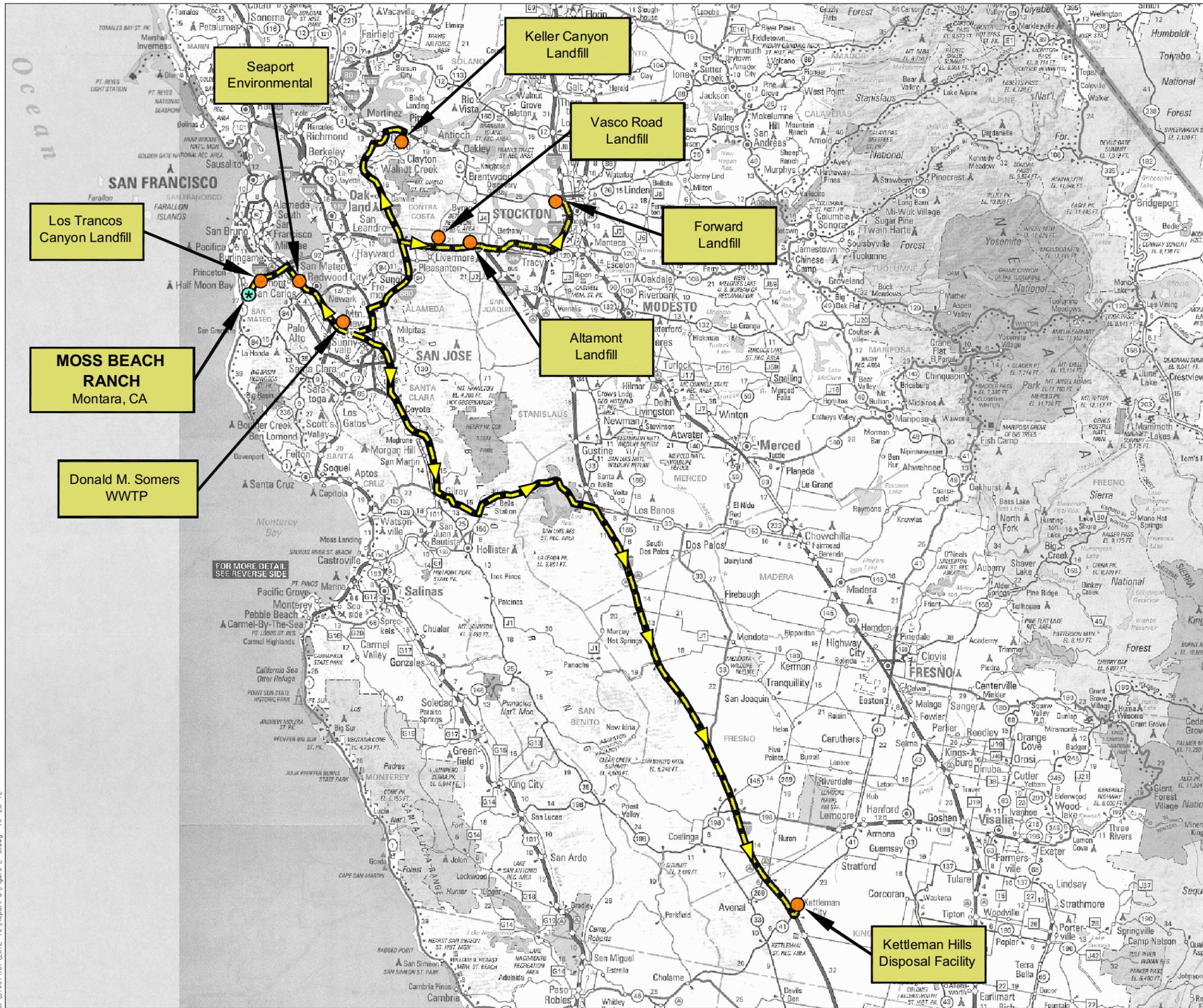
Erler & Kalinowski, Inc.

Local Transportation Routes

Rancho Corral de Tierra
Moss Beach, CA

October 2012
EKI B10014.01

Figure E-2



Legend:

-  Traffic Route
-  Moss Beach Ranch

Abbreviations:

WWTP = Waste Water Treatment Plan

Notes:

1. All locations are approximate.
2. Basemap Source: The Thomas Guide Digital Edition, 2003/4

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Routes to Disposal Facilities

Rancho Corral de Tierra
 Moss Beach, CA
 October 2012
 EKI B10014.01
 Figure E-3



Appendix F
Decontamination Plan

APPENDIX F

DECONTAMINATION PLAN

**Trailer Disposal and Former Debris Areas
Rancho Corral de Tierra
Moss Beach, San Mateo, County, California**

TABLE OF CONTENTS

1.0 INTRODUCTION..... 1

1.1 Site Description and History..... 1

1.2 Regulatory Status..... 1

1.3 Objective..... 2

1.4 Nature and Extent of Contamination..... 2

2.0 DECONTAMINATION PROCEDURES..... 2

2.1 General..... 2

2.2 Dry Weather Decontamination..... 3

2.2.1 General..... 3

2.2.2 Truck Tires..... 3

2.3 Wet Weather Decontamination..... 3

2.3.1 General..... 3

2.3.2 Truck Tires..... 3

3.0 DECONTAMINATION PAD AND ACCESS ROAD..... 3

3.1 Access Road..... 4

3.2 Decontamination Pad Construction..... 4

3.3 Routine Maintenance..... 4

3.4 Decontamination Pad Decommissioning..... 4

4.0 WATER CHARACTERIZATION AND DISPOSAL..... 5

5.0 REFERENCES..... 5

FIGURES

- F-1 Site Location Map
- F-2 Initial Lateral and Vertical Extents of Excavation, Trailer Disposal Area
- F-3 Initial Lateral and Vertical Extents of Excavation, Former Debris Area

1.0 INTRODUCTION

This Decontamination Plan (“Plan”) addresses the Trailer Disposal and Former Debris Areas at Moss Beach Ranch of the Rancho Corral de Tierra property, located in Moss Beach, San Mateo County, California (these areas are referred to as the “Site,” see Figure F-1). Erler & Kalinowski, Inc. (“EKI”) has prepared this Plan for our client, the Peninsula Open Space Trust (“POST”) to describe the general decontamination procedures and protocols that will be employed during implementation of the *Removal Action Workplan* (“RAW”) (EKI, 2012) for the Trailer Disposal and Former Debris Areas at the Site. The proposed remediation alternative in the RAW entails excavation and off-Site disposal of impacted shallow soils and transportation of those soils to a permitted off-Site disposal facility. POST will select a licensed remediation contractor (“Contractor”) to implement the RAW.

The Contractor selected by POST to perform the soil excavation and disposal activities at the Site will be required to prepare an addendum to this Decontamination Plan if the Contractor proposes deviations from procedures specified in this Plan. The Contractor will implement the procedures documented in this Decontamination Plan as well as the Contractor’s addendum to this Plan. EKI and POST will verify that the Contractor implements this Decontamination Plan and the Contractor’s addendum to this Plan.

1.1 Site Description and History

The Trailer Disposal and Former Debris Areas are located on the Moss Beach Ranch portion of the Rancho Corral de Tierra property in Moss Beach, San Mateo County, California. Moss Beach Ranch is a working equestrian facility, located approximately half a mile down an unpaved driveway off of Etheldore Street. The areas are situated approximately 150 feet apart, on either side of San Vicente Creek. The Trailer Disposal area is located behind a trailer home, approximately 40 feet west of San Vicente Creek. The Former Debris Area is located approximately 110 feet east of San Vicente Creek in an open field used for parking and equestrian activities.

The Rancho Corral de Tierra property ownership was transferred from POST to the NPS in December 2011. NPS is in the process of transforming the area into a park, as a part of the Golden Gate National Recreation Area. Moss Beach Ranch will continue to operate as an equestrian facility.

1.2 Regulatory Status

Based on a discussion with NPS and POST on 9 December 2011, EKI understands that NPS will act as the lead regulatory agency overseeing the cleanup of the Trailer Disposal Area and the Former Debris Area at Moss Beach Ranch.

1.3 Objective

The objective of this Decontamination Plan is to establish the project-specific minimum requirements for the decontamination of equipment as it leaves the active work area and before it is removed from the Site. The procedures contained in this Decontamination Plan apply to all equipment used on the Site, including the trucks hauling waste soil off-Site as well as the trucks bringing clean fill to the Site to backfill the excavation.

The Contractor will be required to prepare a Site-specific Health and Safety Plan (“HSP”) which will address personnel decontamination procedures.

1.4 Nature and Extent of Contamination

Previous environmental investigations have found that the chemicals of concern (“COCs”) in soil at the Site are zinc, endrin, and total petroleum hydrocarbons (“TPH”). The maximum zinc concentration detected in soil at the Site is 1,130 milligrams per kilogram (“mg/kg”). The maximum endrin concentration detected in soil is 0.00511 mg/kg. The maximum detected concentrations of TPH as diesel and as motor oil is 42,000 mg/kg and 60,000 mg/kg, respectively. The EKI Site-specific Health and Safety Plan (“HSP”) in Appendix K of the RAW describes the associated potential chemical hazards.

2.0 DECONTAMINATION PROCEDURES

2.1 General

Decontamination work will be conducted, at a minimum, in accordance with the methodologies provided in this Decontamination Plan. Decontamination personnel will be equipped with personnel protective equipment (“PPE”) in accordance with the Contractor’s HSP. PPE will minimally consist of high visibility clothing, impermeable gloves, safety footwear, eye protection, a hard hat, and if required, respiratory protection.

All field equipment used at the Site will be decontaminated by the Contractor prior to transporting the equipment off-Site. Trucks entering and leaving the Site will be inspected for signs of visible contamination. Tracking of sediment from wheels/tires will be minimized to the maximum extent possible. Truck decontamination will occur on the decontamination pad. Decontamination will include removal of soil or mud (anything thicker than approximately ½-inch). Decontamination of trucks will be performed on truck tires, wheel wells, mud flaps, the inside of fenders, tailgates, and the outsides of the truck bed and other areas where significant accumulations of dirt may be present.

Details for construction and decommissioning of the decontamination pad are described in Section 3.0. The decontamination pad will be covered with water-resistant tarpaulins during periods of weather stoppage and at the end of the work day if rain is forecast.

Compressed air will not be used for decontamination or cleaning of any equipment.

2.2 Dry Weather Decontamination

2.2.1 General

During dry weather, trucks leaving the Site will be decontaminated using brooms, brushes, shovels, and plastic scrapers. Loose dirt will be scraped or swept off truck tires, mud flaps, fenders, and other accessible areas.

2.2.2 Truck Tires

If tire dirt cannot be readily removed from tire treads using dry methods, pressure washers will be used to remove it. The entire circumference of truck tires will be inspected before the truck is allowed to leave the Site. The inspector/decontamination technician will inspect all tires after the initial decontamination. Upon completing the inspection, the truck driver will move the truck forward such that the areas of the tires previously in contact with the decontamination pad can be inspected and decontaminated, as necessary.

2.3 Wet Weather Decontamination

2.3.1 General

Mops and soapy water will be the preferred wet weather decontamination tool. If a mop is not practicable because of the time required for cleaning, pressure washers will be used to remove surface material from trucks during wet weather conditions. Pressure washers will be limited to 3,200 psi maximum pressure. If needed, any detergent additives will consist of non-phosphate detergents. Pressure washer operators will be instructed not to spray their wands into the truck beds where the spray might impact bed liners. If pressure washers are used, screens will be set up within the decontamination pad to capture overspray and backsplash from the pressure washing.

2.3.2 Truck Tires

The entire circumference of truck tires will be inspected before the truck is allowed to leave the Site. The inspector/decontamination technician will inspect all tires after the initial decontamination. Upon completing the inspection, the truck driver will move the truck forward such that the areas of the tires previously in contact with the decontamination pad can be inspected and decontaminated, as necessary.

3.0 DECONTAMINATION PAD AND ACCESS ROAD

A decontamination pad will be constructed to capture decontamination wash water. The location of the decontamination pad and access road, if needed, will be determined by the Contractor based on staging of excavation activities. The decontamination pad will likely be placed on site (Figure F-1), but the actual location will be determined by the Contractor based on the anticipated excavation staging and sequencing.

3.1 Access Road

If needed based on Site surface conditions during excavation activities, the Contractor will construct a temporary access road of gravel or crushed rock between the excavation area where trucks will be loaded, the decontamination pad, and the Site exit for the trucks to provide access for the trucks in all weather conditions while keeping the trucks as clean as practicable.

3.2 Decontamination Pad Construction

The Contractor will construct a decontamination pad where trucks and equipment can be decontaminated prior to exiting the Site. The decontamination pad will be a bermed, plastic lined area, constructed large enough to accommodate the largest piece of equipment used on-Site. The pad will be laid with a foundation of clean fill; bermed using clean fill, sand bags, or asphalt curb; sloped towards a collection point, and lined with 10-mil plastic sheeting, or a favorably reviewed equivalent. A protective geotextile will be placed over the plastic liner before placing a layer of gravel at least 4-inches thick on top of the liner.

Sump pumps or an equivalent liquid transfer system will be utilized to transfer wash water from the pad into 55-gallon drums or holding tanks. The sump and decontamination pad will be inspected and maintained on a daily basis or as determined necessary during the construction period work.

3.3 Routine Maintenance

The water level in the sump for the decontamination pad will be monitored at the beginning and end of the work day as well as hourly during rainfall events. The sump will be pumped out when the water level in the sump rises to within 2 inches of the top of the low end of the decontamination pad and before every significant rainfall event. Water removed from the sump should be transferred to 55-gallon drums or a holding tank with secondary containment.

After the last truck of the day has passed over the decontamination pad, loose dirt left on the surface of the pad will be removed and the surface of the gravel will then be cleaned with pressure washers if excessive soil is visible on the pad. The sump will be checked for sediment on a daily basis and emptied as needed.

3.4 Decontamination Pad Decommissioning

At the conclusion of Site work, the decontamination pad will be decommissioned by removing water transfer equipment, the plastic liners, gravel, berms, and the underlying fill used to create the foundation for the pad. The plastic liner will be properly discarded and sent to an appropriate landfill along with other construction debris/contaminated soil. The fill material and gravel will be collected and placed in transport vehicles and sent to an appropriate landfill for disposal as part of the final off-Site load.

4.0 WATER CHARACTERIZATION AND DISPOSAL

It is anticipated that all of the soil collected as part of decontamination would be disposed of off-site as non-hazardous waste, based on soil analytical data for the Site, at the selected disposal facility by the Contractor.

Wash and rinse water collected from the decontamination pad will be collected in 55-gallon drums or a holding tank. At the conclusion of the work, a composite sample of the drums and/or holding tank contents will be collected and analyzed for petroleum hydrocarbons, pesticides, and metals. Based on the profile sample analytical results, an appropriate disposal facility for liquid wastes will be selected. The selected disposal facility may require additional analyses to accept the wastes.

Excavation dewatering is not anticipated to be required to complete the excavation. However, if field conditions necessitate excavation dewatering, the water will be characterized, transported, and disposed of at an approved off-Site disposal facility.

5.0 REFERENCES

EKI, 2012. *Draft Removal Action Workplan, Trailer Disposal and Former Debris Areas Rancho Corral de Tierra, Montara, San Mateo, County, California*, Erler & Kalinowski, Inc., October 2012.



Notes:

1. All locations are approximate.
2. Basemap source: The Thomas Guide Digital Edition, State of California, 2003/2004.

Erler & Kalinowski, Inc.

Site Location
Moss Beach Ranch

Rancho Corral de Tierra
Moss Beach, CA

October 2012
EKI B10014.01

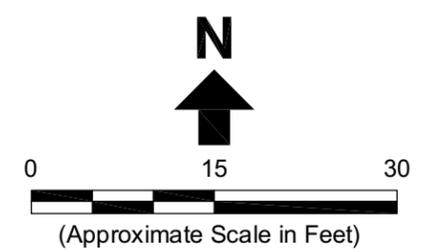
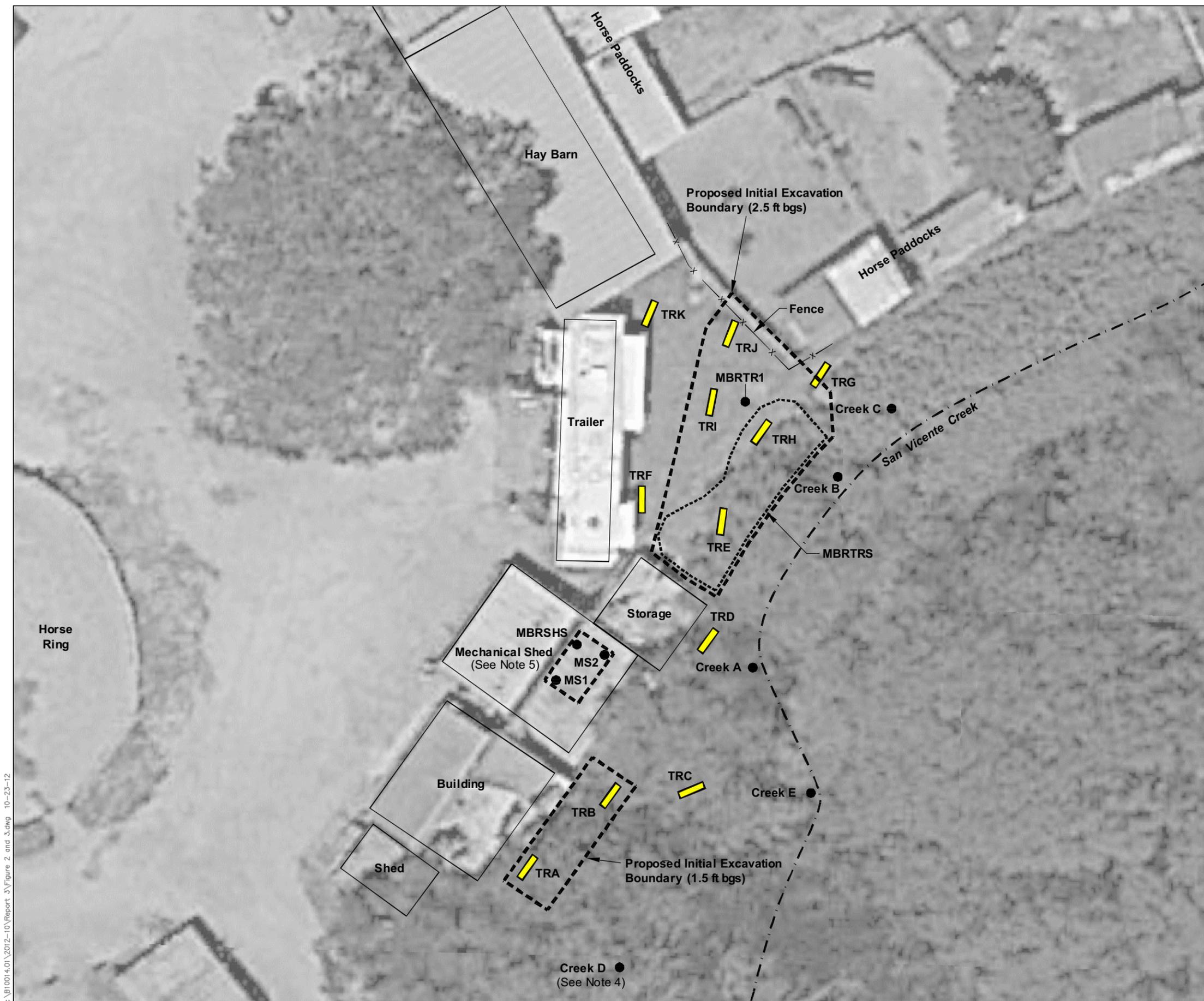
Figure F-1



0 1500 3000



(Approximate Scale in Feet)



- Legend:**
- Soil Sample Location
 - ▭ Test Pit Location
 - ⋯ Multi-Increment Soil Sample Location
 - - - Proposed Initial Excavation Extent

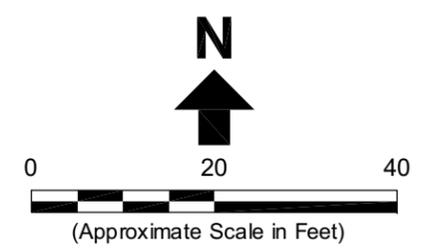
- Abbreviations:**
- ft bgs = Feet below ground surface
 - TPH-d = Total petroleum hydrocarbons as diesel
 - TPH-mo = Total petroleum hydrocarbons as motor oil

- Notes:**
1. All locations are approximate.
 2. Samples with the prefix "TR" and "Creek" were collected in February 2012. All other samples were collected in April 2011.
 3. Basemap source: Google Earth Pro, date of imagery June 19, 2011.
 4. TPH-d detected in sample Creek D was determined to be of natural origins, rather than petroleum hydrocarbons.
 5. The floor of the mechanical shed will be scraped with hand tools to the extent practicable. Due to the on-going use of the mechanical shed and limited access, it may not be feasible to remove all of the impacted soil.

Erler & Kalinowski, Inc.

Initial Extents of Excavation Trailer Disposal Area

Rancho Corral de Tierra
Moss Beach, CA
October 2012
EKI B10014.01
Figure F-2



Legend:

- Test Pit Location
- Multi-Increment Soil Sample Location
- Proposed Initial Excavation Extent

Abbreviations:

- ft bgs = Feet below ground surface
- TPH-d = Total petroleum hydrocarbons as diesel
- TPH-mo = Total petroleum hydrocarbons as motor oil

Notes:

1. All locations are approximate.
2. Basemap source: Google Earth Pro, date of imagery June 19, 2011.

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Initial Extents of Excavation
Former Debris Area

Rancho Corral de Tierra
Moss Beach, CA
October 2012
EKI B10014.01
Figure F-3