
Health and Safety Plan

**Kalaloch Firing Range
Olympic National Park
Kalaloch, Washington**

Prepared for:

**Olympic National Park
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1.0 INTRODUCTION

This Health and Safety Plan (HASP) is intended to protect all employees, general contractors, subcontractors, and/or visitors conducting or observing any activities for an Engineering Evaluation/Cost Analysis (EE/CA) at the Kalaloch Firing Range located in Olympic National Park (Site). This HASP is intended to apply to activities taking place at the Site and covers investigational activities. The HASP is intended to minimize potential exposures and/or accidents that may occur, and details the actions to be taken during an emergency. The HASP will establish required procedures intended to minimize exposures of Site personnel, contractors, visitors and the surrounding community. Guidelines contained herein that are appropriate to the activities taking place at the Site will be observed at all times.

All personnel will be required to understand and observe the provisions of this HASP. Any tasks associated with investigation or remediation activities on the Site must be performed in accordance with this HASP, which is designed to ensure that employees are adequately protected from any potential chemical and/or physical hazards present at the Site. To help ensure safety compliance, all field participants and observers must read this HASP and sign a certification stating that they agree to comply with the conditions of the HASP. All activities conducted will be in accordance with 29 CFR part 1910, *OSHA standards for general industry*.

1.1 Site Description

The Kalaloch Firing Range is located in northwest Washington State at Kalaloch in Olympic National Park. The Site is a closed small-arms firing range consisting of approximately eleven target stands. The primary concern at the Site is the lead-based detritus remaining from small-arms fire. The lead was not derived from industrial sources.

Site workers will be investigating the soil and potentially water in and around the Site. During the course of investigation, the potential exists for personnel to come into contact with firing range-derived lead materials contained on the Site. The Site contains open meadow and forested areas.

1.2 Site Activities

This HASP is intended to address the risks associated with the EE/CA and associated investigatory activities that will take place at the Site. During the course of Site activities, personnel will be required to visit the Site to perform sampling and associated activities. Personnel may also visit the Site to survey and perform other miscellaneous tasks. Site activities may occur year-round. The procedures contained in this HASP are intended to protect those personnel from potential hazards while carrying out their duties, and provide them with information necessary in the event of an emergency.

2.0 PROJECT MANAGEMENT

Efficient implementation of this HASP requires that the roles, responsibilities and scope of authority for key personnel be identified. Individuals will be responsible the following positions:

2.1 Project Manager

The Project Manager is responsible for implementation of the EE/CA and compliance with the HASP.

2.2 Health and Safety Manager

The Health and Safety Manager will have a thorough working knowledge of state and federal occupational safety and health regulations in addition to thorough knowledge and understanding of this HASP. The Health and Safety Manager will have the authority to temporarily suspend Site operations in order to ensure Site safety and resume normal operations once the appropriate measures have been taken. The Health and Safety Manager will report directly to the Project Manager.

2.3 Site Manager

The Site Manager will be present during the majority of site activities and will be responsible for general Site operations, supervision and enforcement of this HASP. The Site Manager will report directly to the Health and Safety Manager.

3.0 TRAINING

3.1 Off-Site Training

All full-time and part-time personnel must hold current certification of the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) 40-hour training. Short-duration personnel on-Site only occasionally for a specific limited task (such as, but not limited to, ground water monitoring, land surveying, or geophysical surveying) and who are unlikely to be exposed over permissible exposure limits and published exposure limits must hold current certification of OSHA HAZWOPER 24-hour training. Temporary visitors shall be escorted at all times by an experienced and trained Site Manager.

3.2 On-Site Training

An informational training program implemented by the Health and Safety Manager will cover on-Site training.

3.3 Health and Safety Meetings

During any Site activities the Site Health and Safety Manager or representative will hold daily tailgate meetings to discuss the day's activities and any related health and safety requirements. The meetings will provide time for a review of pertinent Site conditions and activities.

4.0 MEDICAL SURVEILLANCE

4.1 Medical Surveillance - General

Medical surveillance will be obtained if personnel:

- Receive, or may have received, a possible overexposure to on-Site contaminants;
- Sustain an injury requiring medical attention or hospitalization; and
- Experience an unexplained or serious illness.

5.0 HEALTH AND SAFETY PROTECTION

5.1 Substance Hazards

Metals are known to exist on the Site, and personnel should be briefed on exposure and health hazards. It is not anticipated that exposures to these substances will exceed OSHA's Permissible Exposure Limit (PEL). The following table lists the primary hazards associated with significant exposure to each substance.

Lead Toxic on inhalation and ingestion.

5.2 Safety Hazards

Investigation activities may expose field personnel to potential physical hazards including, but not limited to:

- Slip, trip, or fall hazards created by,
- Holes, ditches, uneven terrain, woody vegetation; and
- Water features; and
- Operation of hand excavation equipment.

5.3 Personal Protective Equipment - Site Investigation

The minimum level of protection used during any investigative activities is level D, requiring the following items:

- Boots;
- Safety glasses;

- Work gloves; and
- Sampling gloves.
- Hearing protection, when needed.

5.4 Portable X-Ray Fluorescence Meter

Only trained RMC personnel may operate portable X-Ray Fluorescence (XRF) meter and will follow Niton operating procedures at all times. The Niton XLP 700 Series analyzer contains a low level radioactive cadmium source that is completely sealed within the analyzer. Should the analyzer become damaged, burned, or crushed no radiation will be emitted. The analyzer should never be pointed at personnel, will remain in the powered down mode during transit and will be inspected for defects prior to operation.

5.5 Transportation

Personnel will follow all federal, state and NPS vehicular operation regulations while traveling to and conducting Site activities. Personnel will ensure that any rental equipment (car) is in safe operating condition prior to each day. Posted speed limits will be adhered to and seat belts will be worn during all operating modes of vehicles or equipment.

5.6 Logs and Reports

The Site Manager will maintain all records required by OSHA, Worker's Compensation Insurance and similar regulations. This will include the maintenance of accident logs, the OSHA annual summary report and the posting of all prescribed notices.

6.0 SITE CONTROL

Site control will be implemented as required during on-Site activities.

6.1 Sampling and Inspection

6.1.1 Work Zone

The work zone consists of the former firing-range and immediate vicinity. This area will be restricted to appropriately trained personnel during sampling activities. Any non-approved personnel will immediately be escorted off-site. The boundaries of the work zone will be established upon the initial site visit prior to commencement of investigative activities.

6.2 General Maintenance

Regular cleaning and maintenance is key to maintaining acceptable exposure levels for Site contaminants. Cleaning and maintenance will be required for all equipment and facilities used by on-Site as well as off-Site personnel.

6.3 Equipment Safety

Equipment will be limited to hand tools. All equipment will be maintained in good working condition.

6.4 Miscellaneous Site Safety Rules

Miscellaneous Site Safety Rules include the following:

- With the exception of routine monitoring not involving construction, a minimum of two personnel shall be on-site at all times;
- No misbehavior is permitted at any time;
- Vehicles used to transport personnel will have seats firmly secured and enough seats for the number of persons to be carried; and
- Seat belts and anchors meeting the requirements of 49 CFR part 571 (department of transportation, federal motor vehicle safety standards) will be installed in all motor vehicles.

7.0 DECONTAMINATION

7.1 Field Personnel

Decontamination procedures for field personnel shall be:

- Removal of gross contamination from clothing and boots prior to leaving the Site;
- Clean hands and face;
- Containment of clothing; and
- Launder clothing separately.

7.2 Equipment

The decontamination procedures for equipment contacting lead fragments shall be:

- Clean vehicles (inside and out) as needed prior to leaving the Site; and
- Sampling equipment and hand tools will be cleaned of gross contamination prior to leaving the Site.

8.0 EMERGENCY RESPONSE

Accidents or potentially hazardous conditions will be handled in a manner that minimizes the health risk to personnel. Accidents and hazardous conditions will be reported to the Site Safety Officer. Prior to start-up of the project, communication procedures will be established that will ensure emergency services are summoned in a timely manner.

8.1 Emergency Route to Hospital

The route to local medical facilities is shown in Figure 1 and emergency contacts with phone numbers are listed in Appendix A.

8.2 Response Procedures

All personnel will be trained in general emergency procedures. Prior to beginning any work, personnel will be required to review the emergency procedures of this HASP and ensure that all necessary equipment is ready for use in the event of an emergency. Visitors to the Site should also be briefed on these procedures.

Common forms of emergency include, but are not limited to fires, explosions, spills, sudden changes in weather and personal illness or injury. The following emergency response procedures have been developed to help ensure a timely and efficient response to emergency situations that may arise.

8.2.1 Major and Minor Personal Injury

If field personnel are injured, the incident scene will be evaluated for immediate hazards and actions taken to eliminate those hazards. Once the incident scene is safe, the "Senior Official" will make an evaluation of the injured person. Seriously injured personnel should not be moved unless their life is in immediate danger and until a person trained in first-aid and CPR has made an assessment.

If the victim is conscious, first-aid may only be administered with the injured person's permission. If the victim is unconscious or unable to respond, then no permission is required to provide standard first aid. If no outside emergency services are needed, the "Senior Official" will arrange for the injured person to be transported to a medical facility.

If it is determined that emergency medical services are needed, the emergency services listed in Appendix A will be contacted as soon as possible. Calling for help is often the most important action to be taken. If you are the only person with the injured employee and urgent care is needed, provide initial critical care and then contact the outside emergency services. Return to care for the victim as soon as possible.

First-aid or other appropriate actions can be administered by the initial "Senior Official" or by the victim. For injuries requiring medical treatment such as a laceration requiring stitches or a sprained ankle, the "Senior Official" shall arrange transportation to the emergency facility as noted in Figure 1. For major injuries, the "Senior Official" may administer first-aid. The "Senior Official" rendering assistance will not place themselves in a situation of unacceptable risk.

8.3.2 Fire or Explosion

In the event of a fire or explosion, the local fire department and the NPS will be notified immediately. The "Senior Official" will notify emergency services, inform them of the location and nature of the fire and identify any hazardous materials on-Site.

During the beginning stages, the closest person to the incident will take measures to extinguish the fire using a fire extinguisher or water hose. If the fire progresses beyond the beginning stages, the "Senior Official" will evacuate workers and any other occupants of the property from the immediate area and allow local fire officials to handle the situation.

8.4 Notification and Documentation Procedures

As soon as practical following an accident/incident, the accident/incident will be documented using the appropriate report forms and the Site Safety Officer will be notified.

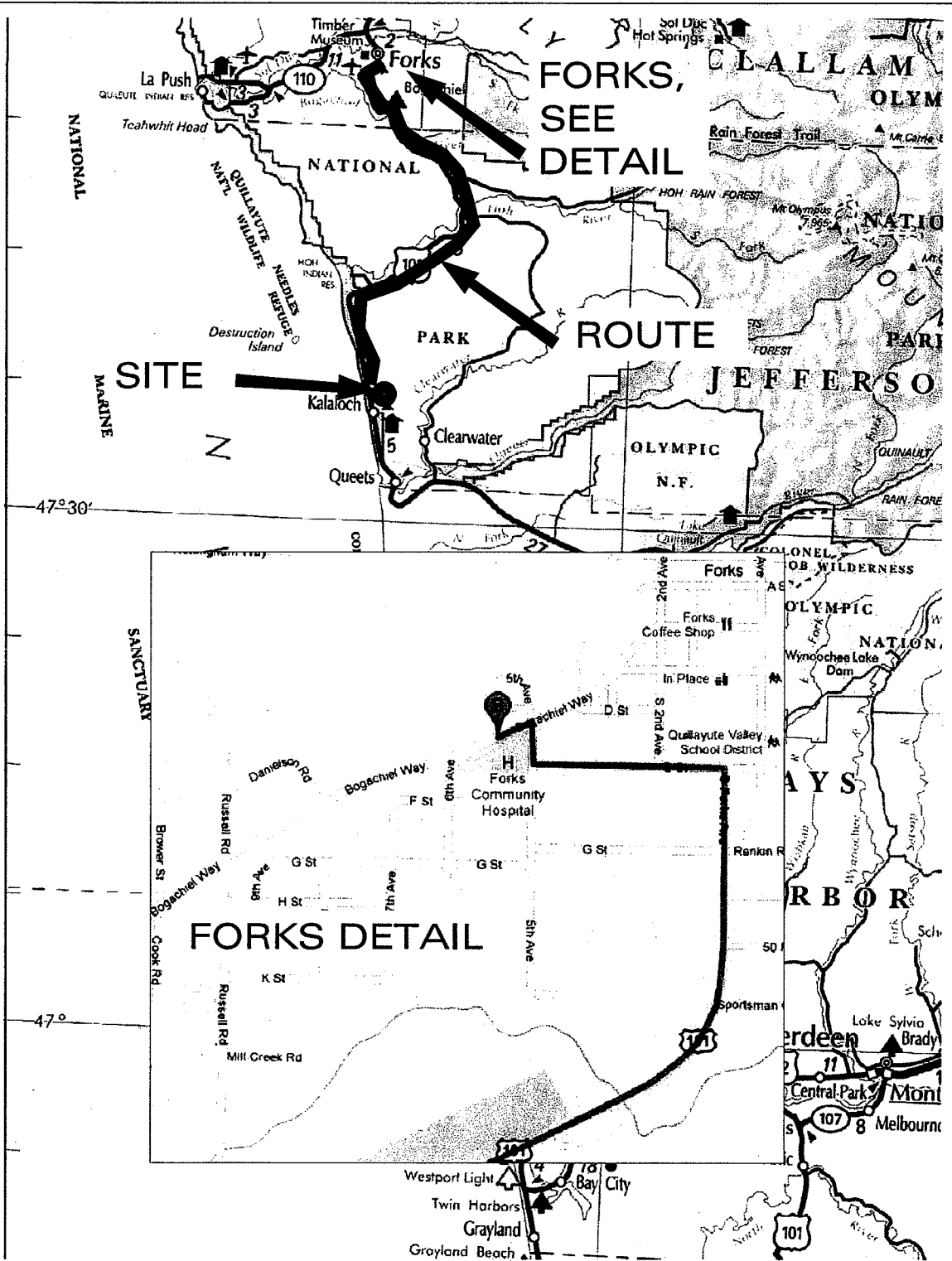
8.5 On-Site Emergency Equipment

The following emergency equipment will be maintained at all work sites:

- Cellular Telephone (note: may not work at Site)
- National Park Service Radio; and
- First-aid kit.

Appendix A – Emergency Contact Phone Numbers

Organization	Telephone
----- Any Emergency	911
Ambulance:	911
Local Police (NPS):	911
Fire:	911
Hospital (Forks Community Hospital, Forks, WA)	(360) 374-6271
Hospital (Quileute Health Clinic, Forks, Washington)	(360) 374-4320
Poison Control Center:	800-732-6985
Regional EPA:	800-424-4372
Washington Emergency Management Division	800-258-5990
National Response Center:	800-424-8802
Center for Disease Control:	404-639-3311
Chemtrec:	800-262-8200
Spill Center:	978-897-6461
DOE Emergency Operations Center (National Center):	202-586-5000



Notes:
 1. Map Source - State of Washington Department of Transportation.



NOT TO SCALE

KALALOCH FIRING RANGE EE/CA

FIGURE 1 EMERGENCY ROUTE TO HOSPITAL

RESOURCE MANAGEMENT CONSULTANTS
 8138 SOUTH STATE ST.
 SUITE 2A
 MIDVALE, UT 84047
 801-255-2626

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