

**SITE SAFETY PLAN
FOR
CRESCENT MILLS INDUSTRIAL SITE
15690 CALIFORNIA HIGHWAY 89
CRESCENT MILLS, CALIFORNIA**

Prepared for:
Sierra Institute for Community and Environment
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1 INTRODUCTION

Sierra Streams Institute (SSI) prepared this task specific Site Safety Plan (SSP) for services to be performed by SSI during remediation activities at the Crescent Mills Industrial Site (site) located in Crescent Mills, California. The SSP was prepared in accordance with guidelines set forth in the California Hazardous Waste Operations Standard, Section 5192 of Title 8 of the Code of California Regulations (8 CCR 5192); the Hazardous Communications Standard, 8 CCR 5194; OSHA's Safety and Health Standard of Title 29 of the Code of Federal Regulations (29 CFR 1910.120, 29 CFR 1926).

The purpose of this SSP is to establish safe procedures and practices for SSI employees engaged in field activities associated with excavation, grading and restoration activities at the site. This SSP is for employees of SSI. However, it will be read and signed by site visitors and subcontractors prior to work associated with site remediation.

The health and safety guidelines and requirements presented herein are based on a review of available information and an evaluation of potential hazards. The plan describes the health and safety procedures and equipment required for excavation and soil sampling in order to minimize the potential for exposures to field personnel. Should circumstances during the course of field work be extraordinarily different than anticipated, field work shall be temporarily stopped, so that potential hazards can be evaluated and appropriate health and safety precautions implemented.

It is not possible in advance to discover, evaluate and protect against all possible hazards which may be encountered. Adherence to the requirements of this SSP will significantly reduce, but not eliminate, the potential for occupational injury and illness at the project site.

The provisions of this SSP will be implemented by SSI personnel. All contractors, subcontractors and other visitors are responsible for their own health and safety. However, all SSI subcontractors are to comply with the requirements of this SSP at a minimum. Subcontractors are to develop their own SSP which addresses all anticipated hazards associated with their scope of work.

Section 2 of this SSP describes the site location and field activities. Section 3 presents the key personnel for this task. Section 4 provides a description of the known site hazards and procedures for protecting workers. Section 5 specifies routine and special training for this task. Section 6 discusses the levels of personal protection. Section 7 discusses medical surveillance requirements. Section 8 discusses the delineation of work areas and site access control. Section 9 contains the decontamination procedures. Section 10 presents references.

2 BACKGROUND AND SETTING

The Site was historically occupied by a lumber mill which operated from the late 1940s to 1986. The Site is currently vacant with the exception of lumber mill remains including stockpiles of wood waste and soil, asphalt paving, concrete floor slabs, building foundations, and residual construction and industrial debris.

Remedial activities proposed for site include excavation and relocation of wood waste stockpiles, excavation, reprocessing and fill placement of concrete and asphalt pavement, excavation and fill placement in clean utility corridors and excavation and on-site placement of clean fill over areas of impacted soil.

2.1 FIELD ACTIVITIES

The proposed work includes observation of excavation of arsenic impacted wood waste, relic asphalt and concrete removal and reprocessing, excavation of clean fill from an on-site borrow area and placement of fill on areas of impacted soil and site restoration activities. Excavation grading and placement activities will include the use of heavy equipment as described in the Remedial Action Workplan (RAW).

3 KEY PERSONNEL AND RESPONSIBILITY

3.1 CHAIN OF COMMAND

Kyle Leach is the Project Manager and will also act as site safety officer (SSO). Other SSI staff may also perform observation and site restoration activities. The SSO has the authority to monitor and correct health and safety problems as noticed on site. The project field staff have completed 40 hours of comprehensive health and safety training which meets the requirements of 8 CCR 5192 and 29 CFR 1910.120. The SSO will make this SSP available to each member of the SSI field team, subcontractors and site visitors.

The project staff is responsible for ensuring that all data acquisition is performed in accordance with the project workplan and SSP, and that deviations from the plans are based upon field conditions encountered and are well documented in the field notes. The field team's health and safety responsibilities include:

1. Following the SSP;
2. Reporting any unsafe conditions or practices to the SSO;
3. Reporting all facts pertaining to incidents which result in injury or exposure to toxic materials to the SSO;

4. Reporting equipment malfunctions or deficiencies to the SSO.

The SSO has on-site responsibility for ensuring that all field team members, including SSI personnel, comply with the SSP. It is the SSO's responsibility to inform the subcontractors and other field personnel when chemical and physical hazards arise. Additional SSO responsibilities include:

1. Providing site safety briefing for team members;
2. Updating equipment or procedures to be used on site based on new information gathered during the site investigation;
3. Inspecting all personal protective equipment to be used by SSI or subcontractors to SSI;
4. Assisting the Project Manager by documenting compliance with the SSP by completing employee and subcontractor SSP acknowledgment forms (Appendix A);
5. Evaluating the effectiveness of field decontamination procedures for personnel, protective equipment, sampling equipment and containers, and heavy equipment and vehicles;
6. Discussing with SSI personnel the location and route to the nearest medical facility and arranging for emergency transportation to the nearest medical facility;
7. Discussing with SSI personnel the telephone numbers of local public emergency services (e.g., police and fire);
8. Reporting injuries and/or illnesses using the accident report form (Appendix B); and
9. Stopping operations that threaten the health and safety of the field team and/or surrounding populace.

3.2 SUBCONTRACTOR PERSONNEL RESPONSIBILITIES

All subcontractors are responsible for their own SSP. A written SSP must be available for Plumas County Environmental Health Department (PCDEH) review if requested.

3.3 VISITORS

Visitors to the work areas are responsible for their own health and safety, but will be provided with a copy of this SSP to read and sign. Following is a list of project contacts.

Kyle Leach, P.G. (SSI)
Project Manager

Office: 530-477-7132
Mobile: 530-575-5605

Jerry Sipe
Plumas County Environmental Health Department
Local Enforcement Agency (LEA) representative

Office: 530-283-6355

Eric Byous
United States Environmental Protection Agency
Lead Agency representative

Office: 415-972-3531

Camille Swezy
Sierra Institute for Community and Environment (site owner)
4438 Main Street
Taylorsville, CA 95983

Office: 530 284-1022

4 HAZARD EVALUATION

The potential hazards to personnel working at this site have been identified as chemical and physical. Each potential hazard relative to the potential for exposure is described below.

4.1 CHEMICAL HAZARDS

The soil to be excavated may contain elevated concentrations of arsenic, hydrocarbons (TPH-diesel and motor oil) and dioxins and furans. Exposure to these metals or chemicals affected soil may occur through the following exposure routes: ingestion of soil or soil dust, inhalation of soil dust, and dermal contact with soil. Application of water to the affected soil is essential to control fugitive dust emissions. Exposure may be reduced by the use of PPE such as boots, long-sleeved clothing, gloves and dust mask or respirator. Proper decontamination is important to remove contaminants prior to leaving the affected areas and to limit exposure.

4.2 PHYSICAL HAZARDS

Physical hazards associated with this project include working near heavy equipment (e.g., excavator and loader), heavy lifting, physical strain,

pinching/cutting/crushing associated with use of mechanical sampling devices and hand tools, slip/trip/fall due to uneven ground surface or mine excavation, potential soil instability near steep excavations, weather conditions, venomous snakes or insects, and noise.

4.2.1 General

Uneven ground surface and/or debris may increase risk of injuries. Personnel shall wear appropriate footwear while on site. Personnel shall wear hard hats, brightly colored (orange/yellow) vest or equivalent, and shall be aware of equipment activities at all times. Keep within view of operators and out of the vicinity of heavy equipment unless required for a specific task. On-site personnel need to be aware of the position and movement of heavy equipment at all times. Adequate clearance from the equipment will be maintained at all times. Eye contact will be maintained by personnel with the equipment operator prior to passing in front of the equipment.

Based on the site characterization results, the limited number of days anticipated for site excavation (approximately 25 working days), and required application of water for dust suppression during soil excavation, airborne levels of metals are expected to be low. During excavation no respiratory protection is required and operations will be performed wearing normal work uniforms with disposable gloves and coveralls (modified Level D personal protection), and dust masks. During the remedial activities, soil moisture content will be maintained to reduce the potential for dust generation.

If, during the excavation or screening process, the site safety officer or any site worker observes fugitive dust emissions from the excavation or stockpiled material, water will be applied to the soil. If sufficient soil moisture cannot be maintained, the site safety officer will stop work and evaluate the appropriateness of additional personal protection measures (Level C), or resumption of work under more favorable conditions.

4.2.2 Noise

Noise levels around heavy equipment can exceed a comfortable range; ear plugs are recommended. Use of hearing protective devices (HPDs) is required whenever the noise level equals or exceeds 85 dBA. In the absence of noise monitoring equipment, an elevated noise level will be defined as a situation where a person cannot be heard above equipment noise while speaking in a normal voice from a distance of two feet. If this condition occurs, the SSO will require that personnel affected by the noise hazard use HPDs.

4.2.3 Equipment Safety

Standard operating safety procedures will be followed by SSI and its subcontractors working around mechanical equipment. Equipment shall be in good operating condition and used in accordance with manufacturer's specifications. Rags, towels or other absorbent materials will be available to clean up any incidental spills that may occur. No hazardous materials in excess of reportable quantities will be brought on-site by SSI personnel.

4.2.4 Sunburn

Working outdoors on sunny days for extended periods of time can cause sunburn to the skin. Excessive exposure to sunlight is associated with the development of skin cancer. Field personnel should take precautions to minimize the risk of sunburn by using sun-screen lotion of at least 15 SPF and/ or wearing hats and long-sleeved garments.

4.2.5 Venomous Insects, Arachnids and Snakes

The project site provides potential habitat for rattlesnakes, and venomous insects and arachnids. Field personnel will wear boots and long pants to reduce potential bite exposure areas. Care should be taken in approaching and accessing areas where snakes and insects may be hidden. Personnel should periodically check clothing, hair and skin during the workday for the presence of ticks.

5 TRAINING REQUIREMENTS

All SSI personnel working on-site have completed training in hazard recognition and basic health and safety issues as required by OSHA regulations contained in 8 CCR 5192 and 29 CFR 1910.120 (e). In addition, each SSI employee working on site and each subcontractor will be familiar with the requirements of this task-specific SSP, and will participate in site activity and safety briefings. The SSO will document site safety activities and implementation of this plan. Prior to new field activities, SSI and subcontractor personnel will conduct a tailgate safety briefing in the field.

6 PERSONAL PROTECTIVE EQUIPMENT

Based on the chemical information and hazard analysis, Level D protection will be initially required for excavation activities and sampling activities. If excessive dust is generated during excavation, dust masks will be required.

Level D protection consists of steel-toed boots, long pants, hard hat, hearing protection, safety glasses or goggles, and gloves if in contact with contaminated soil.

7 MEDICAL SURVEILLANCE REQUIREMENTS

Medical surveillance of SSI employees is to be conducted which meets the requirements of 8 CCR 5192 and 29 CFR 1910.120 (f). There are no identified additional medical surveillance requirements associated with this project.

8 SITE CONTROL MEASURES

The potential chemical and physical hazards have been identified in this SSP; however, should site specific or unexpected conditions arise, the SSO will stop all work at the site and the Project Manager will be notified. Work will not be completed until the SSP has been revised or re-evaluated accordingly.

Break or eating areas shall be located away from the work zone and upwind. In the instance where work is continued to the next day, the work site shall be secured prior to leaving the site. Communication between field team members will consist of verbal communication and hand signals if necessary.

8.1 DAILY START-UP AND SHUTDOWN PROCEDURES

The following protocol will be followed prior to daily start-up and shutdown during field activities:

1. The SSO will review site conditions with respect to modification of work and the task specific SSP;
2. Field personnel will be briefed and updated on safety procedures;
3. The SSO will ensure that first aid equipment is readily available;
4. At the shutdown of daily operations, and in between individual field events, all reusable equipment will be decontaminated and secured.

8.2 WORK ZONES FOR EXCAVATION ACTIVITIES

Designated work zones will be established as appropriate for exclusionary work areas, contamination reduction, and support. The primary means of maintaining

site control and reducing the potential for migration of hazardous materials into uncontaminated areas during sampling activities will be by the use of disposable sampling equipment and decontamination of reusable equipment between each sampling event.

8.3 TRAFFIC CONTROL

The project will involve the use of heavy equipment which will be mobilized and demobilized for the site. An unknown volume of fill soil or other materials may also be imported to the site. The trucks hauling equipment or materials will enter the site from State Highway 89 turn east on an unnamed access road across Highway 89 and between Carter Street and Main Street in Crescent Mills, cross the railroad tracks and enter the site access gate. Trucks exiting the site will reverse the above order and ultimately turn onto Highway 89.

Safe work practices and traffic control measures are to be employed during the project. The contractor will use radio or cell phone communication to direct traffic. Due to the limited truck volume we do not anticipate use of a flagman will be required. During truck hauling of equipment and soil, contractors are to use reasonable precautions to avoid damaging the road. Precautions such as operating trucks at a maximum speed of 15 miles per hour or less while traveling on the site, use of backup beeper signals and avoiding hard braking are to be used.

8.4 WORK PRACTICES

Safe work practices for this project are listed below:

1. Set-up, assemble, and check all equipment for integrity and proper function before starting work activities.
2. Do not use faulty or suspect equipment.
3. Use only new and intact protective clothing. Change gloves, etc., if they tear.
4. Do not use hands to wipe sweat away from face. Use a clean towel or paper towels.
5. Practice contamination avoidance at all times.
6. Do not smoke, eat, or drink within the excavation and sampling areas.

7. Wash hands, face and arms at all breaks and prior to leaving the site at the end of the work day.
8. Perform decontamination procedures completely as required.
9. Notify the Project Manager immediately if there is an accident that causes an injury or illness.

8.5 EMERGENCY MEDICAL TREATMENT

In the event that non-emergency medical treatment is necessary, the nearest medical facility is Plumas District Hospital in Quincy, California. The hospital phone number is 530-283-2121.

Directions to the hospital are as follows:
From the site entrance gate go straight
Continue across the railroad tracks to State Highway 89.
Turn left on State Highway 89 South
Turn left on State Highway 70 East
Turn right on Bucks Lake Road
The hospital is on the right.

In the event of a medical emergency, local rescue agencies should be contacted by calling 911.

9 DECONTAMINATION

Decontamination procedures associated with excavation activities will take place prior to leaving all work areas and/or prior to reusing equipment at a new sampling location, as set forth in the scope of work.

10 REFERENCES

10.1 FEDERAL HEALTH AND SAFETY REQUIREMENTS

EPA Order 1440.1- Respiratory Protection

EPA Order 1440.3- Health and Safety

NIOSH Pocket Guide to Chemical Hazards, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health. June 1994.

OSHA Safety and Health Standards 29 CFR 1910 (General Industry), U.S. Department of Labor, Occupational Safety and Health Administration.

OSHA 29 CFR 1910.120 Hazardous waste Operations and Emergency Response, Final Rule, U.S. Department of Labor, Occupational Safety and Health Administration.

OSHA Safety and Health Standards 29 CFR 1926 (Construction Industry), U.S. Department of Labor, Occupational Safety and Health Administration.

Standard Operating Safety Guidelines, USEPA, Environmental Response Branch, Hazardous Response Support Division, Office of Emergency Response.

10.2 STATE HEALTH AND SAFETY REQUIREMENTS

California Code of Regulations, Title 8, Chapter 4, Subchapter 4, Construction Safety Orders.

California Code of Regulations, Title 8, Chapter 4, Subchapter 5, Electrical Safety Orders.

California Code of Regulations, Title 8, Chapter 4, Subchapter 7, commencing with Section 3200, CAL/ OSHA General Industry Safety Orders.

California Code of Regulations, Title 22, Division 4, Chapter 30, commencing with Section 66000, California Department of Health Services, Toxic Substances Control Program.

APPENDIX

Health and Safety Plan Acknowledgment Form

Accident Report Form

Hospital Route Map

HEALTH AND SAFETY PLAN ACKNOWLEDGMENT FORM

The undersigned acknowledges that he/she has received a copy of the Task Specific Health and Safety Plan for the Spring Hill Property RAW and that he/she has read and understands the contents of the plan.

Name	Company
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Signature	Date
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Name	Company
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Signature	Date
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ACCIDENT REPORT FORM

This form should be completed in the event of an accident on-site which involves SSI, subcontractor, LEA or client personnel resulting in illness or injury.

Date _____

Project Name _____

Project Location _____

Accident Location _____

Personnel Involved _____

Description of Incident _____

Action Taken _____

Results _____

SSO notified? Yes _____ No _____

If not, why? _____

Route to Hospital

Head southwest on CA-89 S/Main St toward Carter St
Continue to follow CA-89 S
7.0 mi



Turn left onto CA-70 E/CA-89 S
10.1 mi

Turn right onto Main St
0.6 mi

Continue onto Bucks Lake Rd
0.1 mi

Turn right
Destination will be on the left

Legend

-  Major Turns
-  Route

Head southwest on CA-89 S/Main St toward Carter St

Turn left onto CA-70 E/CA-89 S

Continue onto Bucks Lake Rd
Turn right onto Main St

Google Earth

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6 mi

