HEALTH AND SAFETY PLAN FOR EMPIRE MINE STATE HISTORIC PARK GRASS VALLEY, CALIFORNIA

JULY 2006

Prepared by:

MFG, INC.

consulting scientists and engineers

3801 Automation Way, Suite 100 Fort Collins, Colorado 80525 (970) 223-9600 Fax: (970) 223-7171

MFG Project No. 180156/102

HEALTH AND SAFETY PLAN **FOR** EMPIRE MINE STATE HISTORIC PARK GRASS VALLEY, CALIFORNIA

	PREPARED BY:				
Title	Name	Signature	Date		
MFG	Jill Richards				
	RI	EVIEWED BY:			
Title	Name	Signature	Date		
MFG Project Manager	Sherm Worthington				
MFG Office Health and Safety Coordinator	Tory Fravel				
MFG Corporate Health and Safety Director	Stacy Meacham				
		REVISIONS			
Title	Name	Approved by:	Date		

List of Attachments

- Safety Compliance Agreement Form Safety Meeting Attendance Form
- В
- Site Vicinity Map Showing Route to Medical Facility C

1.0 PROJECT BACKGROUND AND SITE CHARACTERIZATION

Site Name: Empire Mine State Historic Park Owner/Operator: California Department of Parks and Recreation (CDPR) Site Location/Address: 10556 East Empire Street Grass Valley. California 95945			
CDPR Contact(s):			
Ron Munson, Sector Superintendent Phone: (530) 273-3884 email: rmunson@parks.ca.gov			
Contractor Contact:			
To be determined	Phone: Fax:		

1.1 General Project Objective

The project consists of conducting sample collection, inspection activities, surveys, and light construction activities, such as fence construction, associated with the 2006 Priority Actions within the Empire Mine State Historic Park (SHP). This Health and Safety Plan (HASP) provides guidance for personnel who will be working at the site, and may be potentially exposed to any hazardous waste or substances. The general responsibilities of these personnel are to conduct sampling, visual inspections, surveys, and light construction activities, such as fence construction in the designated exclusion areas within the SHP.

This HASP was developed per California Code of Regulations, Title 8, Section 5192, to provide general health and safety guidance for work activities conducted at the site. According to Cal/OSHA requirements, each contractor working at this site must prepare a site specific HASP that addresses the safety and health hazards for all work activities and includes requirements and procedures for employee protection. The HASP must be kept on-site, and prior to any work done at the site, the project manager and field staff must be familiar with the HASP.

1.2 Health and Safety Plan Scope/Applicability

This HASP applies to all personnel, consultants, contractors conducting work associated with the 2006 Priority Actions within the boundaries of the Empire Mine SHP. The specific work tasks are defined in Section 3.0. This HASP will be amended as necessary for implementation of construction activities associated with the 2006 Priority Actions once those activities are specified.

1.3 Site Description

The SHP property comprises approximately 856 acres, located in the City of Grass Valley, in Nevada County, California. The property is located at the site of the historic Empire Mine operations which California Department of Parks and Recreation (CDPR) acquired in 1975. Since acquisition, CDPR has established a state park at this location providing the visiting public an interpretation of the historic mining operations. The site includes mine and mill-related features and historic depositions of mine waste rock and mill tailing piles.

Based on a Preliminary Endangerment Assessment for the Empire Mine State Historic Park, Grass Valley, California (September 29, 1992) conducted by Harding Lawson Associates, an approximate seven-acre area within the boundaries of the Empire Mine SHP was determined to pose a public health risk due to elevated concentrations of lead, arsenic, cadmium, and mercury associated with historic tailings. This seven-acre area, defined herein as the Designated Area, includes the Old Cyanide Plant and extends to the Sand Dam above Wolf Creek. Mine waste rock and mill-related tailing piles and soils within the Designated Area and possibly at other locations within the SHP may contain metal

concentrations (primarily arsenic, lead, and mercury) that may potentially present health risks to certain people based on the type, amount, and length of exposure.

In addition, physical hazards associated with conducting site inspections or visitations include uneven terrain, steep grades, slippery surfaces, unstable surfaces, holes or ditches, open mineshafts or adits, work at high altitude (sun exposure), dusty conditions, and weather conditions consisting of high temperatures. Building materials (wood timbers, scrap metal, wire, pipe, nails, etc.) may also be present within the Designated Area and other areas within the SHP that may pose physical safety hazards. Overhead electrical lines and underground utility lines could also present a potential safety hazard if contacted or disturbed.

It is incumbent upon every person conducting the Priority Action activities to minimize their exposure to the physical and chemical hazards located within the Designated Area and possibly at other areas of the SHP.

2.0 PROJECT ORGANIZATION

Personnel	Name	Affiliation	Phone (Work)	Phone (Other)
Project Manager	Sherm Worthington	MFG	(970) 206-4284	(970) 227-9445
Site Safety Officer	Site Safety Mahesh Vidyasagar MFG		(970) 223-9600	
Corporate H&S Director	Stacy Meacham	MFG	(402) 933-1345	(402) 651-6675
Field Supervisor	Not Applicable			
	Jason Andrews	MFG	(970) 223-9600	
Field Project	Rebecca Bilodeau	MFG	(970) 223-9600	
Staff:	Jason Cumbers	MFG	(970) 223-9600	
Stair.	Ed Muller	MFG	(970) 223-9600	

2.1 Key Personnel Responsibilities

Project Manager

The Project Manager is responsible for ensuring that all work performed for this project is done in accordance with the requirements of the Work Plan and the HASP. The Project Manager has the authority to suspend activities if the health and/or safety of workers or observers may be compromised. Safety-related authority is outlined below:

Ensuring that the project work is conducted in a manner consistent with the HASP.

Correcting work practices or conditions that may result in injury or exposure to hazardous substances.

Preparing accident and job exposure forms, if necessary.

Site Safety Officer (SSO)

The SSO for this project has responsibility for implementation of this HASP and conformance with all applicable worker safety regulations (WDOH, MSHA and OSHA, as appropriate). The SSO is the primary contact for matters relating to health and safety. The SSO must approve any changes to the HASP or changes to the Work Plans that could impact health and safety. The SSO is responsible for resolving any health and safety issues that arise out of the work.

- Verifying that appropriate communications systems are in place
- Managing health and safety equipment
- Establishing a work/rest regimen if required to prevent heat-related illness or injury
- Overseeing any emergency response activities
- Monitoring health and safety conditions during field work
- Completing accident or incident reports as necessary

- Overseeing set-up, inspection, and execution of decontamination
- Making adjustments to this HASP, in consultation with the Project Manager, as necessary based on field measurements
- Maintaining records of personnel and equipment surveys, worker training, and daily site safety meetings

The SSO has the authority to stop activities if conditions are deemed unsafe. Resumption of site activities following such a shutdown will be at the discretion of the SSO and Project Manager. The SSO has the authority to temporarily or permanently remove from the work area any individual who is not complying with the provisions of the HASP or who is endangering the health and/or safety of any individual present in the work areas.

The SSO or the Project Manager must be present on site during all field activities or may designate an individual to act in place of the SSO or Project Manager such as the Field Supervisor during such times as it is determined that the SSO or Project Manager does not need to be physically present.

3.0 PROJECT WORK PLAN/TASK HAZARD ANALYSIS

3.1 Project Objectives

The project consists of conducting various site activities, which include sample collection, inspection activities, surveying, and light construction activities, such as fence construction, associated with the 2006 Priority Actions within the SHP.

Involved regulatory agencies include the CDPR, California Department of Toxic Substances Control (DTSC), and the California Central Valley Regional Water Quality Control Board (CVRWQCB).

3.2 Work Tasks

	Task Description
Task 1	Soil sample collection from the Red Dirt Pile (RDP), as described in the RDP Work Plan.
Task 2	Physical survey of designated trails, as described in the Trails Work Plan.
Task 3	Physical survey of the exclusion areas and construction of a fence surrounding the designated exclusion areas, as described in the Exclusions Work Plan.

Site-Specific Chemical Hazards (Chemicals known or suspected to be on-site) 3.3

	General Properties					
Constituent	Hazard Class	Physical State	Potential Exposure Routes	Tasks Involving Potential Exposure		
Lead	Toxic	Solid	Inhalation – Dust Ingestion	Walking, sampling and construction activities on tailing or other mine or mill-related materials or windy conditions that generate dust		
Aluminum	Irritant	Solid	Inhalation – Dust Ingestion	Walking, sampling and construction activities on tailing or other mine or mill-related materials or windy conditions that generate dust		
Arsenic	Toxic	Solid	Inhalation – Dust Ingestion	Walking, sampling and construction activities, on tailing or other mine or mill-related materials or windy conditions that generate dust		
Cadmium	Toxic	Solid	Inhalation – Dust Ingestion	Walking, sampling and construction activities, on tailing or other mine or mill-related materials or windy conditions that generate dust		
Mercury	Toxic	Solid/vapor	Inhalation – Dust Ingestion	Walking, sampling and construction activities on tailing or other mine or mill-related materials or windy conditions that generate dust		

Exposure Limits					
Constituent	Constituent PEL IDLH				
Lead	50 μg/m ³	100 mg/m ³			
Aluminum	5 mg/m ³				
Arsenic	10 μg/m ³	5 mg/m ³			
Cadmium	5 μg/m ³	9 mg/m ³			
Mercury compounds (skin)	25 μg/m ³	10 mg/m ³			
Mercury alkyl compounds (skin)	10 μg/m ³	2 mg/m ³			

Notes: PEL = Permissible Exposure Limit (OSHA); IDLH = Immediately Dangerous to Life and Health; $\mu g/m^3 = micrograms$ per cubic meter; $mg/m^3 = milligrams$ per cubic meter.

Warning Properties/Exposure Symptoms			
Constituent Warning Properties Exposure Symptoms		Exposure Symptoms	
Lead	Dust	Nasal ulcers, fever, bronchitis, melanosis, peripheral neuropathy	
Aluminum	Dust	Shortness of breath, weakness and cough with chronic exposure.	
Arsenic	Dust	Nasal ulcers, fever, bronchitis, melanosis, peripheral neuropathy	
Cadmium	Dust	Pulmonary edema, dyspnea (breathing difficulty), cough, chest tightness, substernal pain; headache; chills, muscle aches; nausea, vomiting, diarrhea; anosmia (loss of the sense of smell), emphysema, proteinuria, mild anemia	
Mercury	None	Severe abdominal pain, tremors, weakness, irritation, fatigue	

Site Concentrations of Detected Constituents					
Constituent	Mine/Mill Tailing (average mg/kg)	Surface Water (µg /l dissolved)	Air (μg /m³)		
Lead	3,486	NA	PM_{10} concentrations range from 5.35×10^{-3} to 2.55×10^{-3}		
Aluminum	NA	NA	NA		
Arsenic	1,800	26.7 at Magenta Drain Portal	PM ₁₀ concentrations range from $< 9.95 \times 10^{-4}$ to 1.87×10^{-3}		
Cadmium	99.3	NA	NA		
Mercury	30	.NA	PM_{10} concentrations range from $<7.46 \times 10^{-4}$ to 1.31×10^{-3}		

NA-not available

3.4 Chemicals Used to Perform On-Site Tasks

Task	Chemical	Hazard Class	Physical State	PEL
	None			

3.5 Non-Chemical Hazards

Task/Hazard	Non-Chemical Hazards		
Walking	Tripping due to uneven terrain. Caution should be exercised when walking off established trails, possible underground mine shaft and underground mine collapse features exist within the Park. Workers must maintain an alertness for such features.		
Sampling	Tripping in field sampling areas.		
Working during hot, dry conditions	Possible heat exposure, heat stress, dehydration, or sunstroke. Symptoms include heat rash, heat cramps, heat exhaustion, dizziness, nausea, faintness, and elevated body temperature. Personnel exhibiting symptoms of heat stress must stop work immediately and go and sit in the shade for at least 15 minutes and drink cool fluids or water.		
Sunburn	Over-exposure to the sun can be prevented. Personnel will bring sunscreen with an SPF of least 30 with them to the field and apply it several times a day.		
Inclement Weather	Personnel will arrive at the Site prepared for adverse or changing weather conditions.		
Poisonous Plants	Reactions to poisonous plant exposure vary depending on the individual and the severity of the exposure, and can range from minor skin irritation to severe allergic reactions (oozing rashes and swelling) that require medical attention. Skin protection such as Ivy Block is available in the field kit. It is recommended that exposed areas be washed with Technu. Equipment exposed to poison oak oils is to be washed daily.		
Biting/Stinging Insects	Wasps, bees, spiders, centipedes and other insects may be found on site. West Nile Virus can be transmitted by a simple mosquito bite. Wear insect repellent while onsite. Apply 1x in the morning and reapply after lunch! Bites and stings from insects may be painful but generally are not dangerous, unless the individual bitten/stung is severely allergic. Some spiders such as the Black Widow and Brown Recluse can inflict a serious bite that should be evaluated by a medical professional.		
Ticks	Ticks are small (2mm to 7mm), blood-eating parasites related to spiders that may reside in brushy or grassy areas. Tick bites can result in transmission of Lyme Disease, Rocky Mountain Spotted Tick Fever and other diseases, and may become infected. Lyme Disease can be a debilitating, long-term illness. All tick bites must be evaluated by a medical professional. Ticks removed from workers shall be moist in a container and taken to the Placer County Public Health Laboratory, 11475 C Avenue, Auburn (530) 889-7205 for species determination. If the tick is a deer tick, seek medical attention.		
Stream Work	Hazards include slips, trips and falls resulting from underestimating the power of currents, stepping on slippery or potentially unstable rocks or logs, or slipping on steep banks and drop offs. Drowning could result from unconsciousness after a fall, being swept away by currents, becoming trapped under obstacles in deep, rapidly moving water, being pulled under if waders fill with water, or an inability to swim.		
Small Animals	Never approach animals, including squirrels, bats, dogs and cats. Many serious diseases can be transmitted from animals such as rabies, Hantavirus and Cat Scratch Fever. All animal bites must be evaluated by a medical professional.		
Snakes	Snake bites can occur when snakes are inadvertently disturbed when stepping on or near them, or when turning over rocks or placing hands in crevices. Never handle a snake. Assume all snakes are poisonous. All snake bites must be immediately evaluated by a medical professional. Rattlesnake encounters are fairly common within the Park.		
Working Hours	Normal visiting hours in the field are from 6am to 5pm. Personnel may not visit alone in the field after dark.		

List of Site-Specific Non-Chemical Hazards:

- Overhead Lines electrical
- Underground Utilities electrical, natural gas, television cable
- Earth Moving Equipment including backhoes, excavators, and haul trucks
- Vehicle Traffic
- Trenches and Excavations
- Dust
- Slip/Trip/Fall
- Sharp Objects/Stick/Puncture/Pinch
- Lifting
- Hot Surfaces/Burns
- Noise
- Low Light
- Inclement Weather
- Heat Stress
- Cold Exposure
- Insects (ticks, spiders)
- Dangerous Animals

3.6 Workplace Safety Surveys

Site personnel will survey the Site for potential work hazards at the beginning of the inspection or visitation. Additional site safety surveys or safety audits will be performed:

- in the event of an accident, injury, or illness related to the site;
- whenever a new substance, process or equipment is introduced that was not contemplated in this HASP;
- whenever a safety deficiency is noted;
- when a new hazard is recognized and needs to be evaluated; and
- periodically as needed.

4.0 PERSONNEL TRAINING

All personnel engaged in work involving potential exposure to hazardous chemicals at the Site have completed training in accordance with California Code of Regulations Title 8, Section 5192(e). Training requirements corresponding to the work done for this project applies to workers that are on–site for specific limited tasks, and Section 5192(e)(3)(B) states that a minimum of 24 hours of off-site instruction is required, with a minimum of one day supervised field experience. According to Section 5192(e)(9), equivalent training (i.e. 40 Hour OSHA HAZWOPER training certification) is acceptable, but personnel new to the site must receive site specific training on Park related workplace hazards before site entry. Copies of OSHA records for personnel training are available from the Office Health and Safety Coordinator. The Field Supervisor shall have completed an additional 8 Hour OSHA Supervisor training course. The SSO shall hold a current certificate for first aid/CPR training.

4.1 Site Safety Meetings

Site safety meetings will be conducted to discuss Site activities and task-specific hazards. Safety meeting attendance forms documenting the meetings are included in Attachment B. Safety meetings will be conducted according to the following schedule:

- Every day before work begins which involves more than one person.
- Every time a new individual enters the Site that did not attend the morning safety meeting.
- Documentation of the safety meetings must be placed in the project file.

4.2 Health and Safety Plan

Site visiting personnel are required to review this HASP and acknowledge by signature that they have read it and agree to abide by its requirements. Safety Compliance Agreement Forms are included in Attachment A.

4.3 Additional Training Requirements

All personnel will be familiar with the written Standard Operation Procedures (SOPs) relating to the work.

5.0 ENGINEERING CONTROLS, WORK PRACTICES AND PERSONAL PROTECTIVE EQUIPMENT

5.1 Engineering Controls

No specific engineering controls to be used to control exposure and/or migration of contamination are necessary

Requirements for Equipment Operation Near Power Lines

Activity	Line Rating	Minimum Clearance
Equipment Operation ≤ 50 kV		10 feet
	> 50 kV	10 feet + 0.4 inches per each kV over 50
		kV, or 2 times the length of the line
		insulator (minimum of 10 feet)
In transit with no load	≤ 50 kV	4 feet
and beam lowered	$> 50 \text{ kV to} \le 345 \text{ kV}$	10 feet
	$345 \text{ kV to} \le 750 \text{ kV}$	16 feet

Note: kV = kilovolt

5.2 Safe Work Practices

General Safe Work Practices

The following work practices will be instituted in order to limit worker exposure to contaminants and other hazards.

- 1. Personnel must be physically fit and properly trained prior to performing any field activities.
- 2. Personnel must inspect the job site for safety hazards prior to beginning any field activities. The appropriate personnel will inform visiting personnel of potential work hazards during the indoctrination briefing. Personnel shall follow all Site designated safety procedures.
- 3. All field personnel shall:
 - Read the HASP as part of the site indoctrination briefing:
 - Dress appropriately for weather conditions;
 - Wear safety glasses at all times while in demarcated work areas;
 - Wear protective clothing as required by the HASP; and
 - Immediately report any accident or injury to the appropriate personnel.
- 4. Do not eat, drink, smoke, or chew gum or use tobacco products in restricted areas. Workers shall periodically leave the restricted area to take in water or electrolyte drinks to prevent heat related illness.
- 5. Changes in visitation practices or work rules that involve deviations from the HASP, or that introduce new hazards, will be implemented only after approval by the appropriate personnel.

- 6. Follow all emergency procedures explicitly.
- 7. Be aware of site conditions, and especially any changes in conditions. If an unsafe condition is encountered, rectify and/or report it immediately.
- 8. Unauthorized persons will not be allowed in restricted areas. Non-essential personnel will maintain an appropriate distance from restricted areas.
- 9. If other people are present or working nearby, always check in with the appropriate personnel to coordinate your activities and request their cooperation.
- 10. Personnel working in restricted areas shall wash their hands and face prior to eating, smoking or leaving the Site. Water for hand washing is available at the Park Maintenance Shop.
- 11. No personnel will enter mine openings such as shafts, portals, or adits, without proper underground mine training and prior Park's authorization.

Working in Isolated or Remote Sites

- 1. Personnel working at isolated sites must use the "buddy system" and may not visit isolated or remote sites without accompaniment of another employee. Attempt to maintain line of sight with other personnel, or at a minimum, stay in frequent communication/contact. Visitation will only be conducted during daylight hours.
- Personnel will familiarize themselves with the Empire Mine SHP area by reviewing the site map and
 other available information prior to beginning site visits. Maps will be carried by personnel visiting
 the field.
- 3. Off-road vehicle travel is not permitted.

Stinging/Biting Insects, Poisonous Plants and Animals

- 1. Determine if any visiting personnel are known to be allergic to bee stings or other insect bites/stings. If such persons are identified, an appropriate adrenaline injection kit should be carried into the field and other personnel should be made aware of its location and how to use it. Avoid wearing perfume or after shave lotion.
- 2. Learn to recognize common poisonous plants ("leaves of three, leave them be") and avoid areas where they grow.
- 3. If possible, avoid traversing areas of brush or tall grass where ticks might occur. The use of commercially available tick repellent containing DEET is recommended when working in such areas. When working in areas where ticks may occur, inspect yourself for ticks several times each day. Particular attention should be paid to the scalp, neck, ankles, back of legs and waist. Wear light-colored clothing so ticks may be easier to detect.
- 4. Avoid putting your hands where you can not see them. If your work involves turning over rocks or logs, or reaching into dark areas, wear leather work gloves to avoid being stung or bitten by small insects/animals. Wear shin guards whenever snakes are suspected to be present. Use a flashlight to inspect the interior of monitoring well or interior pipe surfaces for snakes and spiders.

Water Sampling

- 1. Wear the appropriate protective gear for the operation. Non-slip boots should be worn in locations where wet terrain is expected.
- 2. Walk slowly and anticipate footing in sampling area.

3. Exercise caution when opening or handling sampling containers containing acid (hydrochloric, nitric, sulfuric) preservatives. Do not allow sampling containers containing acid to sit in the sun. Warmed acids may fume when the containers are opened causing irritation to the eyes, nose and throat.

Soil Sampling

- 1. Wear the appropriate protective gear for the operation.
- 2. Walk slowly and anticipate footing in sampling area.
- 3. During soil sampling, stand upwind of the active area of soil movement to avoid inhalation, and minimize contact with soil with your clothing and body.

Construction Equipment

- 1. High temperature and equipment engines may create a fire hazard. Platforms, footwalks, steps, and ladders used for equipment access can present slipping and/or falling hazards. Anyone entering or climbing on equipment should always maintain three points of contact.
- 2. Equipment backing up and swing loads pose serious hazard to ground personnel. All equipment shall have functional back-up alarms.
- 3. Eye contact must be made with the operator before approaching moving equipment. The operator must stop the equipment before the worker approaches to reduce the potential hazard. Site personnel not directly involved with the work activity and observers must remain outside the swing radius of the operating equipment.
- 4. Hard hats, safety glasses, and steel-toed boots are required in areas where heavy equipment is working.
- 5. All the safety provisions of normal site operations will be followed.
- 6. Observe safe distances from overhead utilities of at least 10 feet. In accordance with OSHA requirements, greater distances are required for overhead lines carrying greater than 50,000 volts. Greater distance should also be maintained if there is a risk that stray or broken (snapped) cables could come into contact with electrical lines.
- 7. Any vehicle should be parked a safe distance of at least 15 feet from construction equipment.
- 8. NEVER put your hands near moving equipment (e.g. cables, pulleys, hammers, or augers).
- 9. Construction equipment is not to be parked or left idling in areas of dry vegetation.

Use of Protective Equipment

- 1. Inspect, clean and maintain any protective equipment issued to you.
- 2. Anticipate local weather conditions. Wear appropriate clothing and bring extra clothing/rain gear.
- 3. Use only the equipment for which you are trained and qualified.

5.3 Personal Protective Equipment

PPE Level Selection						
Work will be performed using what level PPE:						
Level A Level B Level C Modified Level D X Level D						

PPE Utilization Chart			
PPE	Utilization Requirements		
Hard Hat (ANSI Z 89.1)	Not needed, except at all times in areas where heavy equipment is operating.		
Steel-Toe Boots (ANSI Z 41.1)	Not needed, except at all times in areas where heavy equipment is operating.		
Safety Glasses/Sunglasses (ANSI Z 87.1)	Not needed, except at all times in areas where heavy equipment is operating.		
Hearing Protection	Not needed, except at all times near operating machinery (use arms length rule) when noise level exceeds 85 dB		
Respiratory Protection	Not needed		
Chemical Resistant Gloves	To be used during sampling activities.		
Cotton or Leather Work Gloves	To be used when using hand tools, such as during fence construction activities.		
Rain gear; cold weather gear	As necessary		
Bright-colored Safety Vest	Not needed		
Protective Clothing	Not needed		

6.0 MEDICAL SURVEILLANCE

No site-specific, medical monitoring is required.

7.0 EXPOSURE MONITORING

No exposure monitoring is necessary.

8.0 SITE CONTROLS

Is the Site securely fenced? Partially		
What types of people routinely have access to the site: Park employees, volunteers, and visitors		
The general work areas will be delineated with: Signage, flagging, or barricade fencing		
Briefly describe the location of the work areas: Park trails, Red Dirt Pile, and exclusion areas		
Briefly describe the location of the contamination reduction zone: NA		
Briefly describe the location of the support zone: NA		

9.0 DECONTAMINATION

EQUIPMENT	DECONTAMINATION PROCEDURE	
Sampling Equipment Follow decontamination procedures via associated Workplan SOPs.		
Clothing (boots, gloves, etc.)	Removal of loose soil	

10.0 EMERGENCY RESPONSE PLAN

The following protocols will be used for injuries or incidents:

In case of injury, administer first aid immediately. All injuries, accidents, or near-miss events shall be reported to the Project Manager, SSO and Office Health and Safety Coordinator soon as possible depending on the nature of the injury.

Serious, Life Threating Injury (Emergency Medical Condition):

IN THE EVENT OF A SERIOUS, LIFE THREATENING INJURY, CALL 911 FOR AMBULANCE.

An emergency medical condition is one in which the symptoms lead a prudent layperson acting reasonably to believe that if not treated immediately, might cause loss of life or limb, or lead to severe or permanent disability. Examples include an accident or illness resulting in uncontrolled bleeding, loss of consciousness, seizure, poisoning, severe chest pain, shortness of breath, acute abdominal pain, serious burns or cuts, or broken bones.

Non-life Threatening Injury (Urgent Medical Condition):

An urgent medical condition is not an immediate threat of life or limb, but one in which delaying medical treatment could lead to serious medical problems. Examples include infections, sprains, and soreness.

Other injuries:

All injuries, accidents, or near-miss events will be reported to the Project Manager, SSO and Office Health and Safety Coordinator.

Fire:

Summer conditions within the Grass Valley area present potential fire danger conditions. In the event of fire, field personnel will follow Park fire protocols. Field supervisory personnel shall contact 911 to report fire conditions, all field personnel will evacuate the Park premises to the Pennsylvania mine entrance on Empire Street designated as the evacuation meeting area, field supervisory personnel shall account for the presence of all workers, and field supervisory personnel shall report the incident to the Park ranger staff.

CONTACT	PHONE NUMBER	
Fire/Rescue:	911	
Ambulance:	911	
Police:	911	
Nearest Hospital:	503-274-6000	
National Poison Control Center:	800-222-1222	
Hazardous Materials Spill Response Units:		
EPA Hotline (24 Hours):	800-621-3191	
CHEMTREC (24 Hours)	800-424-9300	
National Response Center (24 Hours)	800-424-8802	

Name of Medical Facility	Sierra Nevada Memorial Hospital
Address	155 Glasson Way Grass Valley, CA
Telephone Number	Emergency: 911 General: 503-274-6000
Directions from Site	Go east on East Empire Street to Empire Mine Cross Road. Turn left onto Empire Mine Cross Road. Proceed north to Highway 174. Turn left onto Highway 174 and proceed to East Bennett Street. Turn left onto East Bennett Street. Proceed to East Main Street. Turn right onto East Main Street. Proceed to Presley Way. Turn right onto Presley Way. Proceed to Catherine Lane. Turn left onto Catherine Lane. Proceed to Glasson way. Turn right onto Glasson Way and proceed to Sierra Nevada Memorial Hospital.
Map	See Attachment C

Emergency equipment is located as follows:

First Aid Kit	In field vehicle
Fire Extinguisher	In field vehicle
Cellular Phone	In field vehicle
Spill Kit	Park Maintenance Shop
Eye Wash	In first aid kit in field vehicle
Wipes for face and hands	In first aid kit in field vehicle

11.0 CONFINED SPACE ENTRY

Confined space entry is not permitted under this Site Safety Plan <u>under any circumstances</u>. If entry into confined spaces is necessary, a confined space entry plan and permit system must first be prepared and approved by the Project Manager and Site Health and Safety Director.

Examples of potential confined spaces include the following:

- Manholes and utility access points
- Containment pits and sumps
- Trenches greater than 4 feet in depth
- Aboveground storage tanks

Visiting personnel will not enter trenches deeper than 4 feet unless the trench sidewalls are laid back at slope of 1(H):1(V) or milder, or the trench is reinforced with a trench box.

ATTACHMENT A SAFETY COMPLIANCE AGREEMENT FORM

SAFETY COMPLIANCE AGREEMENT FORM

PROJECT TITLE:	Empire Mine State Historic Park
PROJECT TASK:	Site Sampling, Inspection and Construction Protocols
Plan and agree to comp	the Health and Safety Plan for the above referenced project. I have read the Health and Safety with all the health and safety requirements contained therein. I understand that I may be on the project for violating any of the Health and Safety Plan requirements.
SIGNATURE:	DATE:
NOTE: This form mus	be submitted to the Site Safety Officer and Project Manager.

ATTACHMENT B SAFETY MEETING AGREEMENT FORM

EMPIRE MINE STATE HISTORIC PARK SAFETY MEETING LOG

Date	
Topics Discussed:	
Attendance:	1
Signature of Attendee	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
Site Safety Officer	
Paviawad by Sita Safaty Officer	 Note

ATTACHMENT C SITE VICINITY MAP SHOWING ROUTE TO MEDICAL FACILITY



