

Monitoring Protocol for Greater Sage-Grouse (*Centrocercus urophasianus*) at Craters of the Moon National Monument and Preserve and City of Rocks National Reserve

Standard Operating Procedure #9: Safety

Version 1

Citation:

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To create a new version of this SOP, carefully follow the instructions in SOP #8: Revising the Protocol (<https://irma.nps.gov/DataStore/Reference/Profile/2254871>). Use the Change History Log below to describe the revisions.

Change History

Original Version #	Date of Revision	Revised By	Changes	Justification	Page #'s Affected	New Version #

1. Version numbers increase incrementally by tenths (e.g., version 1.1, version 1.2, ...etc) for minor changes. Major revisions should be designated with the next whole number (e.g., version 2.0, 3.0, 4.0 ...). Record the previous version number, date of revision, author of the revision, identify paragraphs and pages where changes are made, and the reason for making the changes along with the new version number.
2. Notify the UCBN Project Lead and Data Manager of any changes to the SOP so that the new version number can be incorporated in the Metadata of the project database.
3. Post new versions on the internet and forward copies to all individuals with a previous version of the SOP.

Introduction and Objectives

Encountering hazardous situations is inherent in sage-grouse lek monitoring activities, and all staff persons need to be aware of these risks and take adequate precautions. A primary goal of the UCBN is to ensure the safety of its staff and associates while conducting inventory and monitoring activities in parks. Risks include working alone in rugged and isolated environments, long driving trips between Parks and Network offices, backcountry roads and trails, hiking over rough terrain, extreme weather and hazardous fire conditions, and traversing steep slopes and cliffs. Job Hazards Analyses have been prepared for driving and for sage-grouse lek monitoring fieldwork and these will be updated and reviewed each year by all field staff. This is a fundamental step in building operational leadership capacity in the UCBN I&M Program.

This SOP contains the following appendices:

- Appendix 1: Sage-Grouse Monitoring JHA
- Appendix 2: Field Itinerary Form Template
- Appendix 3: Readiness Review Example
- Appendix 4: Readiness Review Signature Page
- Appendix 5: Vehicle Travel Checklist
- Appendix 6: CRMO Backcountry Travel SOP

The following roles and responsibilities are adapted from the NPSafe program. In addition, we have incorporated principles from Operational Leadership (<http://www.cti-home.com/services/operational-leadership/>) to empower all employees to take responsibility for safety and wellness. All Program Managers and Project Leads will take Operational Leadership (OL) training and apply OL principles in assessing risk and managing field crew safety. According to these principles, program managers and team leaders are responsible for setting the standards, articulating the standards to employees, and following and enforcing the standards. All staff are responsible for knowing, understanding, following, and encouraging others to follow the standards. Standards include the standard operating procedures specific to this protocol as well as overall safety standards for the monitoring program (i.e. those that are common across protocols such as communication and vehicle safety). Prior to the start of each field season, certain safety documents must be reviewed, signed, and returned to the park contact and the network coordinator. These documents include fieldwork itinerary forms that outline when and where field operations will take place, readiness review documents that detail necessary safety matters that have been prepared for the field season, a travel safety checklist, and job hazard analyses (JHAs) that highlight some of the individual risks associated with fieldwork and ways to mitigate those risks. A CRMO specific backcountry travel SOP is required for anyone performing fieldwork in CRMO. These documents are included in the appendices following this SOP.

Emergency contact information is provided in the Field Reference Manual, and first aid kits, a SPOT emergency beacon and 2-way radios are provided to field teams. Cell phones should be carried in vehicles, when available, although coverage is spotty in most UCBN park areas. UCBN evacuation instructions and medical information for each UCBN staff person and associate conducting fieldwork

will be provided to field leads and carried in the primary field vehicle along with the vehicle first aid kit.

Working in Small Teams

Field staff will often work alone when traveling to and from remote sites and when sampling vegetation in the field. Field staff will operate in teams of two in close proximity to each other whenever possible, but will sample locations independently. As a result, particular attention must be given to safety and communication. Team members must make an extra effort to work within sight and earshot of one another. Regular radio checks are required when this is not feasible.

Backcountry Roads and Trails

Travel between parks will require long road trips under varied weather and road conditions. It is incumbent upon field staff to drive responsibly, and to monitor fatigue while driving. Pull over to rest when necessary! Accessing sample sites will require travel on secondary roads that are graveled or dirt, and some sites require hiking. In CRMO, access to sample sites is extremely difficult, remote, and may require overnight camping. Many CRMO roads are not maintained. High vegetation growing up through roads can block view of lava rocks, which can damage vehicles. A damaged vehicle could lead to a life-threatening situation if the vehicle cannot be driven out and no communication to call for help is available (e.g., no cell phone coverage, no radio contact). Vegetated jeep roads can also pose serious fire hazards when driving over them with hot vehicles. Late season access, which could begin as early as June in some drought years, may be prohibited if fire risk is too high. Fire protection equipment must be maintained in working condition and be available in work vehicles at all times. It is incumbent upon field staff to maintain regular contact with Park staff to review developing hazards.

Weather and Field Gear

Fieldwork in UCBN parks can bring with it challenging weather extremes. Snow, rain, wind and freezing temperatures can occur during field operations, particularly during early spring sampling. More commonly, heat is a problem and temperatures may frequently be above 100°F. Hypothermia and heat-related injury are possible and occasional discomfort is certain. It is essential to the success of the program that all UCBN staff persons and associates working on sagebrush steppe monitoring projects are well prepared for weather extremes. Good rain gear, warm clothes, sunhats, sunscreen, and mosquito repellent are essential. In 2006, Idaho emerged as a “hot spot” for West Nile Virus, and numerous cases of human infection and illness caused by this mosquito-borne virus were reported. The U.S. Center for Disease Control website for this disease contains up-to-date information on location of outbreaks and prevention tips. The web address is as follows:

<http://www.cdc.gov/ncidod/dvbid/westnile/>

Lightweight long-sleeve clothing can be helpful, and mosquito repellent is a must!

Safety Precautions

UCBN sagebrush steppe parks are extremely rugged and remote. Steep slopes and cliffs, and broken lava expanses are routinely encountered during vegetation sampling. While sampling frames exclude slopes over 30°, exposure to unsafe terrain may be unavoidable and these areas may need to be

traversed when traveling between sites. Conservative decision making is imperative and may require traveling further distances to avoid unsafe routes. It is incumbent upon field personnel to make conservative decisions and choose safest routes possible to access sampling areas. Safety is more important than productivity, and the UCBN does not want the drive to complete plots to cloud good judgment. Proper field gear, including good footwear, long pants, sun and rain protection, adequate food and water, will help mitigate many of the risks encountered in the field. An injury, even a minor one, could cause a substantial interruption in field schedules and overall monitoring program progress. Minor injuries can become serious life-threatening incidents if complications such as cold weather and long distances back to a vehicle are present. Be prepared!

Field Communications

Field schedules, particularly when long travel distances are involved, often end after normal working hours. Upon arrival and check-in at each park, establish a clear procedure of communication between UCBN teams and park staff. Cell phone coverage at most park sites is intermittent and should not be relied upon in case of an emergency, except for HAFO where cell phones are the standard method of field communication. Arrange to call a primary park contact, even at home, upon safe return in the evening, particularly at Craters of the Moon, where extreme distances, the remoteness of the park, and hazardous terrain combine into a serious safety issue. Park radios may be issued, particularly at CRMO and JODA, as a means for field personnel to be able to contact the park, or, after hours, a BLM or Forest Service dispatch office in case of serious emergency. Check with park contacts for radio availability and use procedures. Field crews carry 2-way radios for communication between field crew members. Field crews will also carry a SPOT emergency beacon for checking in during fieldwork or to report an emergency.

Emergency Contact Information

Having established lines of communication and a Check-in/Check-out procedure are essential to ensure timely assistance can be provided in case of a mishap or delay. This will be particularly important since UCBN field staff will often work alone. A routine will be established where UCBN field staff will contact park staff to notify them of the time and location of work in each park using email or other written forms of communication. In addition, it is advisable to leave a written travel plan with UCBN staff or other NPS staff. This plan should include the time and location of work and return times. National Park Service park managers and UCBN staff should be notified if plans have been modified. Table SOP9-1 contains emergency and field operations contact information for each park; a similar list will be included in the Field Reference Manual.

UCBN field staff may obtain a field radio programmed for the applicable radio frequencies used by each park and BLM/USFS district where they will be working. Cell phones should be carried when working in parks with adequate cell phone coverage.

Table SOP9-1. List of park contacts and emergency information for field operations.

Park	Contact	Name	Telephone
CIRO	CIRO Visitor Center	–	208-824-5901
	Resource Manager	Tara McClure-Cannon	208-824-5915
	Superintendent	Wallace Keck	208-824-5911
	Emergency	–	–
	–	Cassia Regional Medical Center	208-678-4444 Or 911
	–	Cassia County Sheriff's Office	208-878-1107 Or 911
CRMO	Integrated Resource Program Manager	Linda Manning	208-527-1350
	Wildlife Biologist	Todd Stefanic	208-527-1352
	Superintendent	Wade Vagias	208-527-1310
	Emergency	–	–
	–	Lost Rivers District Hospital - Arco	208-527-8206 Or 911
	–	Butte County Sheriff's Office	208-527-8553 Or 911

Job Hazard Analysis

The UCBN sage-grouse monitoring project lead will, in conjunction with his/her supervisor (and, if appropriate, other knowledgeable persons), develop a Job Hazard Analysis (JHA) of the task to be performed within each park. Table SOP9-2 lists suggested topics to address in the JHA. At the beginning of each sampling season all personnel will review the appropriate JHA and make modifications as necessary. The procedure to be used for writing a JHA is presented in NPS Reference Manual #50B, Occupational Safety and Health Program.

(<https://www.nps.gov/policy/RM50Bsection3.pdf>).

Table SOP9-2. Suggested topics to be addressed in the sage-grouse monitoring Job Hazard Analysis.

General Job Activity	Basic Job Step	Potential Hazards
All Field Activities	Environmental Conditions	Temperature and Sun Exposure
		Adverse Weather (rain, snow, lightning and wind)
		Hazardous Animals, Plants, People
Accessing Sites	Highway Driving	Varied Road Conditions
		Fatigue
		Behavior of other Drivers
		Animals and other Obstructions
	Driving on Unimproved Roads	Rough and Vegetated Roads
		Muddy Roads
		Fire Ignition During Dry Weather
		Narrow Roads with Poor Visibility
	Hiking	Steep/Slippery Terrain, Rocky Slopes

Appendix 1. Sage-Grouse Monitoring JHA

2018 Job Hazards Analysis for UCBN Sage-Grouse Monitoring

Job Hazard Analysis UCBN Sage Grouse Monitoring Program																	
U.S. Department of Interior National Park Service	WORK PROJECT/ACTIVITY: UCBN Sage Grouse Monitoring	LOCATION: Upper Columbia Basin Network	UNIT: CIRO, CRMO														
JOB HAZARD ANALYSIS (JHA)	DEVELOPED BY: Tom Rodhouse <i>Revised by Jeff Lonneker</i>	JOB TITLE: UCBN Ecologist/Data Manager	DATE PREPARED: 2/22/2018														
APPROVED BY: DATE:																	
Required and/or Recommended Personal Protective Equipment:																	
<table> <tbody> <tr> <td>Sturdy hiking boots</td> <td>Compass / GPS Unit</td> </tr> <tr> <td>Long pants</td> <td>Maps</td> </tr> <tr> <td>Warm clothing / hat</td> <td>Emergency contact information/Field Reference Manual</td> </tr> <tr> <td>Rain gear</td> <td>Personal water bottles</td> </tr> <tr> <td>Sun hat</td> <td>Food</td> </tr> <tr> <td>Sunscreen</td> <td>First Aid Kit</td> </tr> <tr> <td>Sunglasses</td> <td>Park radio</td> </tr> </tbody> </table>				Sturdy hiking boots	Compass / GPS Unit	Long pants	Maps	Warm clothing / hat	Emergency contact information/Field Reference Manual	Rain gear	Personal water bottles	Sun hat	Food	Sunscreen	First Aid Kit	Sunglasses	Park radio
Sturdy hiking boots	Compass / GPS Unit																
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Rain gear	Personal water bottles																
Sun hat	Food																
Sunscreen	First Aid Kit																
Sunglasses	Park radio																

TASKS/PROCEDURES	HAZARDS	ABATEMENT ACTIONS
		All people (permanent, seasonal, VIPs) involved in any project should receive a general orientation and tailgate safety session specific to the task prior to beginning of work.
1. Driving to and from remote field sites	1a. Narrow roads with bumpy or "washboard" surfaces	WEAR SEATBELTS AT ALL TIMES WHEN VEHICLE IS MOVING 1a. Maintain a safe speed (this is often below the legal speed limit) for the road conditions; stay clear to the right, especially on curves, drive with headlights on at all times; when turning around on mountain roads always "face the danger" (versus backing toward the cliff edge, e.g.); the passenger should get out and spot for driver when backing up.
	1b. Driving with limited visibility	1b. Maintain windshield cleaner fluid level and clean both sides of windows regularly (remember back window); slow down; if blinded by sun or dust, proceed slowly or pull over and wait for hazard to pass; keep to the right hand side of the road and drive with your lights on.
	1c. Sharp rocks on edge or in middle of road	1c. Get out and move sharp rocks out of the way, reduce speed substantially in places with large amounts of rockfall; make sure tires are properly inflated and check tread and walls regularly for damage; make sure tire jack fits the vehicle and all parts are in the vehicle.
	1d. Large animals crossing or standing in roads	1d. Slow down where animals might be present to allow for reaction time; do not swerve abruptly to avoid hitting an animal, if necessary it's better to ride out the impact.
	1e. Fatigue in the early morning, at night or after a long shift in the field	1e. Be aware of signs of fatigue- pull over and rest! Take a short nap, eat a snack or have a partner drive; do not take chances by continuing to drive; communicate with your field partner.
	1f. Storm conditions – wind, lightning, muddy/slippery roads	1f. Keep informed on the current weather- check http://www.weather.com or www.wrh.noaa.gov ; if winds exceed 15 mph, or the excessive wind category on Beaufort scale (tree tops swaying, twigs and leaves falling, etc.), do not travel into the field; avoid going to the field if lightning is present and avoid using radios; drive slowly when roads are muddy and slippery or snow covered, check with park staff if you are uncertain of back road conditions; avoid wet clay roads as much as possible, these roads can fail after storms, especially in spring, maintain a slow speed when driving on these roads!; if you damage waterbars make sure you repair them immediately.

TASKS/PROCEDURES	HAZARDS	ABATEMENT ACTIONS
1. Driving to and from remote field sites (cont.)	1g. Fallen trees on road	1g. For small trees, try and remove tree or cut with a handsaw and remove portion of tree; for large trees, notify support crew to remove tree.
	1h. Others driving on the road	1h. Do not assume you are the only one on the road behind locked gates (day or night), people from other agencies use these roads; be alert to the idea that others may be coming in from the field in the early a.m. - drive slow and keep right!; if you encounter an unusual situation, contact your partner to inform and notify the supervisor or park ranger- avoid confrontational situations with visitors- let the proper authorities handle it!
	1i. Wildfire ignition from vehicle undercarriage/catalytic converter	1i. Track fire hazard warnings from Park and other agencies; Obey road closures, such as occur in late summer at CRMO when fire hazards are extreme; Avoid driving over vegetated two-track roads whenever possible; constantly monitor accumulated vegetation underneath, and watch behind for smolder; ALL UCBN VEHICLES MUST HAVE BASIC FIRE PREVENTION AND EXTINGUISHING EQUIPMENT AT ALL TIMES!
2. Communication	2a. Loss of contact with field partner(s)/team member(s)	2a. Make sure radios are charged and on the correct channel. Use cell phone (if available and coverage), as this may be more reliable for communication in remote locations. Establish regular contact/meeting times where failure to contact triggers emergency procedures. Clearly establish triggers for emergency procedures, avoid false alarms.
	2b. Unable to reach a radio repeater in a remote location	2b. Make sure radio is charged- try to contact someone on the radio to inform him/her of your predicament; if you are unable to reach a repeater from your location climb upslope toward a ridgetop or knoll and try again; try at regular intervals, meandering around may help in getting a signal; Use cell phone in vehicle (if available), as this may be more reliable for communication in remote locations.
3. Hiking	3a. Steep, rugged, and slippery terrain	3a. Assess terrain conditions to find safe route and modify sampling plans to avoid unsafe areas; proper footwear is VERY important- wear boots with slip-resistant soles with tops well above the ankle, broken in before the field season, plus extra socks, NO TENNIS SHOES or open toed sandals; maintain an erect posture when contouring steep slopes; avoid walking below another person due to the potential for rocks to dislodge from above
	3b. Undergrowth	3b. Wear safety glasses (or other glasses) when hiking in brushy areas to protect eyes from protruding objects.

TASKS/PROCEDURES	HAZARDS	ABATEMENT ACTIONS
3. Hiking (cont.)	3c. Rocks/climbing	3c. It is likely that hiking may occur over large or steep rocks, broken lava terrain. Vertical climbing should be avoided unless outfitted with proper rock climbing gear. Follow procedures in 3a. for travel across lava.
	3d. Crossing fences	3d. It is likely that multiple fences will be crossed during the course of work. When possible use gates (leave them open or closed depending on how you find them) if no gate is available cross under or over with caution.
4. Encountering noxious plants, animals, disease, and people	4a. Bees/Wasps/Hornets	4a. Determine if any field crew are allergic to bee stings. Notify other crew members and the supervisor if you know you are allergic to bee stings; ensure that individual carries prescribed medication to prevent anaphylactic shock; carry a bee sting kit or Benadryl or other antihistamine; be aware of the ground where you step- some hornets build nests in the ground at the base of trees or shrubs, or in rotten logs- watch for bees buzzing in and out of holes or around ground level; if possible, flag a nest so future surveyors won't run into it;
	4b. Ticks	4b. If bitten by a tick, remove it (grasp tick with tweezers at head and pull straight out); fill out an accident report in the event that symptoms of Lyme disease appear (red bull's eye rash);
	4c. Scorpions	4c. Inspect items left lying on the ground, e.g., clothing, for scorpions prior to putting them on, especially after camping
	4d. Mosquitoes	4d. Wear bug repellent and long sleeve shirt to prevent bites; be aware of West Nile Virus symptoms.
	4e. Rattlesnakes	4e. Avoid rattlesnakes by inspecting the ground near logs before stepping over them; avoid placing hands on rock ledges or other natural hoists without visually inspecting them first; in the unlikely event you're bitten by a rattlesnake, stay calm, sit still, and call and wait for help.
	4f. Mountain lions	4f. Avoid mountain lions; if you encounter a lion that doesn't run from you- leave the area; if attacked- fight back!
	4g. Disease (bubonic plague and Hanta Virus)	4g. Stay away from dead rodents and rodent feces, especially in closed buildings.
	4h. Encounters with strangers	4h. Report uncomfortable encounters with strangers in the park to a supervisor as soon as possible; report apparent illegal activity to a park ranger, do not get into a confrontation with visitors in the park.

TASKS/PROCEDURES	HAZARDS	ABATEMENT ACTIONS
5. Exposure to environmental variables	5a. Treatment of general injuries	5a. All NPS field staff and contractors should have current first aid and CPR certification.
	5b. Hypothermia	5b. Always anticipate bad weather and dress accordingly, or carry warm clothes with you; keep clothing as dry as possible; use synthetic fleece and non-cotton outdoor clothing in inclement weather; eat high energy nutritional supplements between meals; cover the head and neck to prevent heat loss; keep active to maintain the body's metabolism; drink plenty of liquids to prevent dehydration, although an individual does not "feel" thirsty; drink warm liquids not cold; understand the effects of cold and wind; most hypothermia cases develop between 30°F and 50°F.
	5c. Hyperthermia	5c. Hyperthermia may occur during high temperatures, monitor for dehydration, heat exhaustion, heat cramps, and heat stroke; symptoms include nausea, headache, and flushed, red skin; drink plenty of water (even when you are not thirsty); as heat increases, take frequent breaks in cool locations; wear a light shirt.
	5d. Giardia	5d. Giardia is caused by drinking contaminated water- carry plenty of water on outings; also carry water treatment tablets; consider all streams contaminated.
	5e. Sunburn	5e. Field work takes place in full sunlight so use 30+ or greater SFP sunscreen and lip balm; and wear a hat, sunglasses, and shirt.

JHA Instructions	Emergency Evacuation Instructions
The JHA shall identify the location of the work project or activity, the name of employee(s) involved in the process, the date(s) of acknowledgment, and the name of the appropriate supervisor approving the JHA. The supervisor acknowledges that employees have read and understand the contents, have received the required training, and are qualified to perform the work project or activity. Identify all tasks and procedures associated with the work project or activity that have potential to cause injury or illness to personnel and damage to property or material. Include emergency evacuation procedures (EEP). Identify all known or suspect hazards associated with each respective task/procedure listed. For example: a. Research past accidents/incidents. b. Research the Health and Safety Code, or other appropriate literature. c. Discuss the work project/activity with participants. d. Observe the work project/activity. e. A combination of the above.	Work supervisors and crew members are responsible for developing and discussing field emergency evacuation procedures (EEP) and alternatives in the event a person(s) becomes seriously ill or injured at the worksite. Be prepared to provide the following information: a. Nature of the accident or injury (avoid using victim's name). b. Type of assistance needed, if any (ground, air, or water evacuation). c. Location of accident or injury, best access route into the worksite (road name/number), identifiable ground/air landmarks. d. Radio frequencies. e. Contact person. f. Local hazards to ground vehicles or aviation. g. Weather conditions (wind speed & direction, visibility, temperature). h. Topography. i. Number of individuals to be transported. j. Estimated weight of individuals for air/water evacuation. The items listed above serve only as guidelines for the development of emergency evacuation procedures.

Identify appropriate actions to reduce or eliminate the hazards identified. Abatement measures listed below are in the order of the preferred abatement method: a. Engineering Controls (the most desirable method of abatement). For example, ergonomically designed tools, equipment, and furniture. b. Substitution. For example, switching to high flash point, non-toxic solvents. c. Administrative Controls. For example, limiting exposure by reducing the work schedule; establishing appropriate procedures and practices. d. PPE (least desirable method of abatement). For example, using hearing protection when working with or close to portable machines (chain saws, rock drills, and portable water pumps). e. A combination of the above. Copy of the JHA as justification for purchase orders when procuring PPE.	JHA and Emergency Evacuation Procedures Acknowledgment We, the undersigned work leader and crew members, acknowledge participation in the development of this JHA (as applicable) and accompanying emergency evacuation procedures. We have thoroughly discussed and understand the provisions of each of these documents: <table> <thead> <tr> <th>PRINT NAME</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> </tbody> </table>	PRINT NAME	DATE	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
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Appendix 2. Field Itinerary Form Template

UCBN FIELD ITINERARY FORM

To be submitted to Program Manager and Park Contact at least one week prior to planned trip.

<i>This form may contain confidential information and must be kept secure</i>	
Field Crew Supervisor	
Field Crew Leader	
Monitoring Project etc.	
Field work description	
Dates of field work	
Transportation arrangements	
What will be the contact arrangement with the Park contact?	Contact person Phone number Frequency of contacts Instructions
What shall UCBN staff do if no contact is made?	Contact person Phone number Instructions

DETAILS OF PARTICIPANTS

NAME	STATUS UCBN staff, Uldaho employee, student, volunteer	JOB HAZARD ANALYSIS ATTACHED? (Mandatory)
		Yes No
		Yes No
		Yes No
		Yes No
		Yes No
		Yes No

ITINERARY DETAILS

DATE/TIMES	LOCATION	ACCOMMODATION	CONTACT DETAILS

RISK ASSESSMENT

FIELD WORK ACTIVITY	POTENTIAL HAZARD What might harm you?	RISK RATING (Extreme, High, Medium, Low)	CONTROLS What are you going to do to make this activity as safe as possible?	PERSON WHO WILL ENSURE THIS HAPPENS

ITEMS THAT WILL BE COMPLETED PRIOR TO THE FIELD WORK

	Tick as appropriate
Participants briefed on details of proposed field work; relevant safety policies, procedures and expected conduct while in the field	
Job Hazard Analysis signed by all participants	
All equipment, vehicles and tools will be checked for safety compliance prior to field work commencing	
I have made the necessary provisions for emergency situations such as the appropriate level of first aid, emergency contact telephone numbers; e.g., helicopter rescue, police, fire, etc.	
I have checked with participants whether they have any medical conditions that should be disclosed	
I have checked that appropriate licenses, permits and agreements with have been obtained and are up to date for the use of specialized equipment such as boats.	

PEOPLE RESPONSIBLE FOR SUBMISSION AND APPROVAL

NAME	SIGNATURE	DATE
Field Work Supervisor		
Field Crew Leader		
Program Manager Based on information in the above Field Itinerary Plan: ☐ Approve ☐ Do not approve ☐ Grant conditional approval		
Conditions if relevant		
NOTE:- • A copy of this Field Itinerary Plan and associated Job Hazard Analysis forms are filed in the UCBN Moscow office. • Copies of all volunteer forms are filed in the UCBN Moscow office.		

Appendix 3. Readiness Review Example

Protocol/Field Work Readiness Review-Assessment Components

Supplement to Protocol Readiness Review Certification

Monitoring Protocol: Sage-Grouse Monitoring

Park and Network: Craters of the Moon National Monument and Preserve (CRMO); Upper Columbia Basin Network (UCBN)

Date: 4/9/2018-5/26/2018

Readiness Review Component Details

Describe how the protocol and implementation address the following:

- ***Operations planning and field logistics***

A detailed field itinerary form will be submitted to the UCBN Program Manager and Park Contact at least one week prior to planned trip. The itinerary will include: a brief description of fieldwork, dates of fieldwork, transportation arrangements, primary and secondary park contact information, list of participants, detailed daily description of fieldwork, location of fieldwork, risk assessment, and items to be completed prior to field work. Signed field itinerary forms are posted on the UCBN server.

Check-in procedures with park staff are outlined in the field itinerary form. Standard UCBN procedure calls for check in with the park upon arrival and daily check in upon completion of fieldwork each day (timing identified in the field itinerary form). This should be clarified and agreed to by the UCBN field crew leader and the CRMO park contact/field work supervisor (e.g., Biologist or NR chief) at the start of the fieldwork.

Job Hazard Analysis forms are completed and sent to the parks prior to fieldwork. These are also posted on the UCBN server. Signatures will be acquired as part of a field crew safety discussion at the start of the field project, and returned by fax, scan, or mail to the UCBN Moscow office for archiving.

Sage-grouse protocol SOP #9 “Safety” lists the procedures for safety preparation prior to fieldwork. Prior to the start of each field season, certain safety documents must be reviewed, signed, and returned to the park contact and the network coordinator. These documents include fieldwork itinerary forms that outline when and where field operations will take place, a travel safety checklist, job hazard analyses (JHAs) that highlight some of the individual risks associated with fieldwork and ways to mitigate those risks, and this readiness review. Signatures for JHAs will be acquired as part of a field crew safety discussion at the start of the field project, and returned by fax, scan, or mail to the UCBN Moscow office for archiving. All documents are completed prior to the start of fieldwork, distributed to all park and safety contacts, and posted to the UCBN server.

Safety Steps include:

1. Completion and review of fieldwork itinerary form
2. Completion and review of Readiness Review materials
3. Completion and review of travel safety checklist
4. Review and update of Job Hazard Analysis (JHA)
5. Review and update of sage-grouse monitoring SOP #9 “Safety”
6. Review and update emergency contact information
7. Completion of Medical Information for Office Personnel form
8. Completion of CPR / First Aid for crew leader and, as available, field crew members
9. Completion of Operational Leadership Training for all crew members
10. Check weather and fire hazard conditions

- ***Training requirements***

The approved Sage-Grouse Monitoring protocol SOPs will serve as the training manual for sage-grouse monitoring. See SOP #3 “Training Field Personnel” and SOP #9 “Safety”. Minimum requirements for field crew leader include basic first aid/CPR and NPS Operational Leadership.

In addition, daily tailgate safety meetings are held to address changing conditions.

During initial check in with parks safety concerns and special conditions are discussed with park staff.

- ***Risk management***

Job Hazard Analysis forms are completed and sent to the parks prior to fieldwork. These are also posted on the UCBN server. Daily tailgate safety meetings are held to address changing conditions. During initial check in with parks safety concerns and special conditions are discussed with park staff. **Exact lek survey location coordinates and maps are provided to the park point of contact. Changes and updates to daily itinerary are communicated to park staff at morning check-in.**

All participants are to understand that safety is our first priority.

Risks and risk mitigation are also discussed in SOP#9, field safety.

Daily tailgate safety briefings will take place involving an “SPE” exercise (from NPS Operational Leadership) to evaluate the severity, probability, and exposure to risks associated with daily tasks.

- ***Awareness of and consistency with park safety protocols and emergency procedures***

The parks are involved in the review of the UCBN field itinerary forms. Special safety protocols and emergency procedures are discussed at this time and during the initial check in with park staff.

- ***Supervisory oversight***

Sage-grouse monitoring standard operating procedures have been peer reviewed and accepted for implementation. In addition, the UCBN program manager and park supervisory staff review all proposed field itineraries for activities to be completed in fulfillment of this protocol. The UCBN supervisory chain of command is UCBN Program Manager>UCBN Ecologist>UCBN field crew lead.

- ***Communications***

Check in and out procedures are defined on the field itinerary form and are provided to park staff prior to fieldwork. Personal cell phones are carried by field personnel. A CRMO park radio will be carried by the field crew lead when operating in CRMO. A SPOT emergency beacon issued by the UCBN will be carried during fieldwork. Additional details, including phone numbers, are provided in the itinerary.

Appendix 4. Readiness Review Signature Page

Pacific West Region Inventory and Monitoring Program Protocol Readiness Review Certification

Monitoring Protocol: _____

Park and Network: _____

Date: _____

We confirm that the above named monitoring protocol has sufficient resources and support to implement with full consideration for safety, field logistics, and supervisory oversight. All relevant Inventory and Monitoring Program and park personnel have been informed of, understand, and concur with safety plans, procedures, and responsibilities, and will effectively communicate, supervise, and execute these measures through the Inventory and Monitoring Program, Inventory and Monitoring Network, and park lines of authority. Park staff and Inventory and Monitoring personnel have jointly identified the key groups and individuals that will contribute and participate to ensure safe implementation of the protocol.

Our Readiness Review assessed the following components of protocol implementation and safety:

- Operations planning and field logistics
- Training requirements
- Risk management
- Awareness of and consistency with park safety protocols and emergency procedures
- Supervisory oversight
- Communications

We certify that each above component has been fully addressed and will be properly implemented and supported prior to initiating and while conducting protocol field work (including pilot data collection or other field work before a protocol is finalized).

Signatures:

Park Superintendent	Name	Park/Network	Date
I&M Network Program Manager	Name	Park/Network	Date
Protocol Field Supervisor/Manager	Name	Park/Network	Date

Copies of this certification must be provided to the I&M Network Board of Directors Chair and to the Regional I&M Program Manager. The signed original is retained by the I&M Network Program Manager.

Appendix 5. Vehicle Travel Checklist

	CHECKLIST ITEM	YES	NO	N/A
1.	Has the traveler planned the trip to include rest stops and overnight stays?			
2.	Has the traveler checked the weather forecast for the intended route and planned accordingly?			
3.	Has the traveler been briefed not drive more than 10 hours in a 24-hour period? (note 1 & 2)			
4.	Have you briefed the traveler on the need to get at least 8 hours of rest prior to departure?			
5.	Have you discouraged the traveler from driving during late hours?			
6.	Have you stressed the importance of obeying speed limits and wearing seatbelts?			
7.	Have you briefed the traveler to inspect the vehicle prior to departure? (note 3)			
8.	Have you discussed the results of the risk assessment required prior to multi-day trips? (note 4)			
9.	Does the traveler have a cell phone, in-car charger and is he or she aware that texting is prohibited while driving while on official Government business? (note 5)			
10.	Does the traveler have the appropriate phone numbers in case of an emergency?			
11.	Does the traveler have maps that cover the planned route?			
12.	Is the vehicle equipped with an emergency kit? (note 6)			

Notes

1. *If traveler has worked any portion of his or her shift prior to departure, time worked must be added to driving time to equal a maximum of 10 hours.*
2. *Traveler can exceed 10 hour driving time only if an emergency situation necessitates the need.*
3. *The following items shall be inspected (by the traveler or qualified person) prior to departure:*
 - a. *All fluids (fuel, coolant, windshield washer fluid, oil, brake fluid, power steering fluid and transmission fluid)*
 - b. *All lights*
 - c. *Tires to include spare (tread depth, air pressure and overall condition)*
 - d. *Jack and necessary equipment to change tire*
 - e. *Windshield wipers*
 - f. *Horn*
4. *Risk assessment (e.g., Operational Leadership Green/Amber/Red or Severity/Probability/Exposure analysis).*
5. *Texting is prohibited when driving by Presidential Proclamation 8610. It is recommended the traveler use a cell phone only when stopped; however, if this is not possible, a hands-free device will be used.*
6. *Emergency kit should contain:*
 - a. *Water*
 - b. *Food (energy bars, etc.)*
 - c. *Blanket(s)*
 - d. *Road flares*
 - e. *Flashlight*
 - f. *First aid kit*
 - g. *Candle*
 - h. *Lighter or matches*
 - i. *Jumper cables*
 - j. *Any other item the operator or supervisor deems necessary*

 Supervisor's Signature

 * Provisional Supervisor's Signature

 Traveler's Signature

** Temporary supervisors during LE Training, FTEP, details etc. In these cases, both supervisors are required to sign.*

Appendix 6. CRMO Backcountry Travel SOP

Standard Operating Procedures # XX

Section: Visitor and Resource Protection

Subject: Backcountry Travel

Scope: All CRMO employees, partners, volunteers & permitted researchers

Purpose: Provide a process whereby CRMO staff can safely and effectively travel in the backcountry.

INTRODUCTION

Backcountry travel in the Craters of the Moon National Monument should be safe, productive and enriching. This Standard Operating Procedure (SOP) for Backcountry Travel applies to all CRMO employees, including volunteers and researchers, who are traveling in CRMO backcountry during paid work hours. “Backcountry” is defined as “travel outside of the developed zone, off paved highways or north end road outside of developed areas.” Generally, any area further than ¼ mile from a paved road or the North End Road should be considered backcountry.

Guidelines:

- Before embarking on backcountry travel, involved employees must review the Job Hazard Analysis (JHA) found in the Safety folder on the CRMO shared drive (W:\SAFETY\JHA's).
- Employees traveling to the backcountry should inform their immediate supervisor or Division Chief of their intended route of travel and estimated return time.
- Employees should always plan to travel in groups of two or more and arrange for status checks at preplanned intervals (at least daily) by radio, SPOT device, or cell phone when traveling.
- In any situations where employees travel alone, check-in by radio, SPOT device, or cell phone must be done at pre-determined times to a prearranged park contact. The number of contacts depends on the anticipated travel time. For durations up to half a day, one prearranged contact (mid-morning or mid-afternoon). For a full day, three contacts (mid-morning, noon, mid-afternoon). Park contact must know destination and route and return date/time. Communication must consist of a status update and any anticipated deviations from route or return time. Unexpected deviations in work plans require additional contacts.

- Individuals or groups planning to work and/or return before and/or after normal office hours (8 am - 5 pm) must pre-arrange a “safe return” notification to prearranged contact (in park or at home) who will be responsible for initiating a response if the individual or group is overdue by more than two hours.
- All backcountry travelers should carry a radio and/or cell phone or SPOT/ResQLink device, first-aid kit, clothing appropriate for the season, foot wear (at least ankle high boots for rugged off trail areas), solar protection (hat, bandana, and/or sun block), long pants, appropriate amount of drinking water (2-4 quarts/day depending upon temperatures), flashlight, and minimal pack weight (less than 1/3 of body weight).
- Prior to travel, a weather forecast should be obtained. Avoid backcountry travel on days when lightning is imminent.
- All travelers in the backcountry should realize that medical help is limited and transportation to a medical facility could potentially take a long amount of time, especially at night or during inclement weather.

Approved by: __/s/ _____

Effective Date: 05/XX/2012