

<p>U.S. Department of Agriculture Forest Service</p>	<p>1. WORK PROJECT/ACTIVITY Bat exit counts at buildings and caves</p>	<p>2. LOCATION</p>	<p>3. UNIT</p>		
<p>JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse)</p>	<p>4. NAME OF ANALYST</p>	<p>5. JOB TITLE</p>	<p>6. DATE PREPARED</p>		
<p>7. TASKS/PROCEDURES</p>	<p>8. HAZARDS</p>	<p>9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE</p>	<p>10. POST ABATEMENT ACTION RISK RATING (from the Severity/Probability Matrix)</p>		
			<p>Severity</p>	<p>Probability</p>	<p>Risk Code</p>
<p>Conducting exit counts at buildings and caves involves driving at night and working during the evening at night near caves and buildings. Hazards include vehicle accidents, getting lost, slips, falls, cuts and biohazards, encountering the public, unsafe buildings, and guano and rodent feces.</p> <p>Consult the USFS Region 6 September 21, 2012 Information and Direction Regarding Buildings Used by Bats Within the Northwest Forest Plan Area for detailed information on surveys and safety including building inspections and the use of respirators.</p>	<p>Getting lost</p>	<ul style="list-style-type: none"> • Use sign in/sign out board and/or dispatch. • Ensure availability of after hours dispatch if needed with Crook County by calling directly. • Provide supervisor with map of area if needed. • Advise FS LEOs or recreation leads if working in areas near visitors. • Do not work alone. 	<p>Critical</p>	<p>Occasional</p>	<p>High 2</p>
	<p>Vehicle accidents</p>	<ul style="list-style-type: none"> • Ensure that vehicles are operating properly and all required safety equipment is working. • Make sure windshields are clean inside and out and lights set at appropriate level. • Have Forest Service radios available inside vehicles and other means of communication such as cell phones or walkie/talkies. • Do not drive if sleep deprived • Observe speed limits and traffic conditions. • Drive slowly and cautiously at night—watch for animals crossing the road • Each vehicle should have at least 2 occupants Passenger has responsibility to stay awake and scout for road hazards, monitor driver’s alertness, and engage in conversation with driver if necessary but not to the point of distraction. Driver has the responsibility to pull over if drowsy or ask passenger to drive. 	<p>Catastrophic</p>	<p>Occasional</p>	<p>High 1</p>

	<p>Biohazards, slips, falls, cuts, bites, stings</p> <ul style="list-style-type: none"> • Loose/falling material or unstable surface, especially at older, abandoned buildings • Use of ladder • Sharp protrusions • Hazardous footing • Hazardous materials • Toxic insects/hives, plants, or snakes • Limited vision at night 	<ul style="list-style-type: none"> • Wear glove to protect hands and knee pads to protect knees when crawling. Consult with your safety officer for an assessment of appropriate gear, respirator fit, and surveyor fitness for conducting internal surveys. • Wear sturdy hiking boots that cover ankles (minimum 6 inch height when measured from bottom of heel) and waders/wading boots in water. • Wear long-sleeved shirts and pants and layered clothing for cool nights. • Scout site during day if unfamiliar to evaluate potential hazards, identify safest routes, and place flagging if needed. • Leave the area and call your hazmat contact if any suspicious containers (e.g. barrels, plastic buckets, drums) that could contain hazardous materials are found. • Before conducting surveys, evaluate the structural condition of the building. Some buildings may be unsafe to enter or to lean a ladder against. If the building appears to be unsafe, do not enter the facility. If you are unsure of the structural integrity of the building, consult with your safety officer or facilities personnel to determine the best course of action. • When entering a building, be aware of low clearance, falling debris, protruding nails, broken glass, rotten boards, aerosol particulates, and insulation. Assess entries, floors, all walking surfaces for stability. • Do not travel on or under rotten material; test areas with a walking stick if needed. When investigating attics or ceiling crawl spaces, travel along rafters, do not step on unsupported ceiling material. • Wear protective clothing, footwear, and headgear as needed to protect against falling material, insect bites, and sharp protrusions. 	<p>Critical</p>	<p>Ocassional</p>	<p>High 2</p>
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		<ul style="list-style-type: none"> • Do not touch electrical wiring. • Use extreme caution when traversing precarious routes, such as crawling along rafters or in areas with extensive wiring. • Ladders may be needed to safely access or view certain parts of the structure. Place ladder evenly against stable material at a safe angle. Have a second person hold the base of the ladder . Two or more people should be present if there are safety concerns, such as walking on rafters or climbing ladders. • Watch where you are walking when traveling around the building and be aware of poisonous plants and snakes when appropriate. • Constantly assess your route and approach for safety and consider alternatives. • Collect data and photos from a location where you are stable, safe, out of harm's way and not disturbing roosting bats. • Roofs, especially of older buildings can be unstable, use a cherry picker or conduct bat emergence surveys if roof access to assess roof shingles is unsafe. • During night surveys, use white light to negotiate landscape and red light to spot bats. Have at least 2 headlamps per person and carry extra batteries. • Avoid shining lights into co-workers' eyes. • At night, limit surveys to ground travel and avoid using ladders and surveying roofs or other difficult access points. • Always look first before placing hands in rocks, crevices, or brushy areas • When using an acoustic detector with head phones, watch where you are walking. • Avoid walking in to brushy areas that might provide cover for poisonous snakes without first listening and looking for them. 			
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	<p align="center">Disease transmission to humans</p>	<ul style="list-style-type: none"> • Buildings may contain potentially harmful rodent feces, guano, aerosol particulates, and insulation. Avoid areas where there are dust, insulation, and especially mouse droppings unless voluntary use of a dust mask with a p-100 rating occurs. BLM and Forest Service employees are not allowed to perform hazardous work that requires the use of a respirator without special training and clearance. Voluntary use of a face mask in non-hazardous environments is, however, allowed. In most situations, bat surveys of buildings fall under the category of voluntary use of a filtering face piece (dust mask) in a non-hazardous situation. A P-100 (hanta virus resistant) rated disposable dust mask is recommended when conducting bat surveys in attics, crawl ways, or other dusty situations to reduce the discomfort associated with breathing dusty air and in the unlikely event of incidental exposure to other irritants. Before voluntarily using a dust mask, employees must read the Forest Service Region 6 Safety Guide, Appendix D to 1910.134, follow the instructions, and sign a document certifying these steps have been taken. Appendix D and the document to sign are included in this enclosure, below. If at any point prior to or during a survey, you suspect or are concerned that hazardous materials are present, forgo the surveys and contact your safety officer for additional advice. Consult the survey and safety guidelines including the use of respirators in the USFS Region 6 September 21, 2012 <i>Information and Direction Regarding Buildings Used by Bats Within the Northwest Forest Plan Area.</i> • Although rabies is present in bat colonies at low levels, it can be transmitted from a rabid 	<p align="center">Catastrophic</p>	<p align="center">Unlikely</p>	<p align="center">Medium 3</p>
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		<p>bat to a human through a bite and potentially from direct contact of infected bat saliva into the eyes, mouth, or nose of a human. Do not touch or pick up live, injured or sick bats unless you are immunized against rabies and have a current protective titer. Dead bats can be handled or placed in a collection bag by someone wearing gloves.</p> <ul style="list-style-type: none"> • Wear protective gloves if collecting guano. • If there is accidental ungloved contact or a bite with a bat or guano, wash hands with antiseptic or alcohol wash immediately. If there is a suspected exposure to rabies, consult with survey leader and/or supervisor and follow the <i>Algorithm for prevention of rabies after animal bites in Oregon</i> State of Oregon procedures for potential rabies exposure http://public.health.oregon.gov/DiseasesConditions/DiseasesAZ/Pages/disease.aspx?did=41 			
	<p>Persons of questionable intent</p>	<ul style="list-style-type: none"> • Always work on public land unless prior explicit approval has been given to conduct surveys on private land, preferably in writing. • If surveying popular sites contact Forest Service recreation leads, and/or LEOs let them know you will be working at night • Be aware of potential human occupancy of the building and leave building if other unknown people are occupying an abandoned building. • Answer questions about survey work in the field but trust your instincts on motivation for individuals. Call dispatch, other co-workers, and/or return to your vehicle if you feel unsafe at all. Leave area if needed. 	<p>Critical</p>	<p>Ocassional</p>	<p>High 2</p>

	<p align="center">Disease transmission and stress to bats</p>	<ul style="list-style-type: none"> • To avoid spreading of white-nose syndrome (WNS) between caves and buildings with bats, equipment, clothing, and boots should be cleaned according to most recent recommended protocols https://www.whitenosesyndrome.org/topics/decontamination • Observe proper decontamination procedures for cleaning equipment, boots, and clothing to avoid/minimize spread of <i>Batrachochytrium dendrobatidis</i> to amphibians. Decon protocol for WNS will suffice for Chytrid fungus. 	<p align="center">Catastrophic</p>	<p align="center">Unlikely</p>	<p align="center">Medium 3</p>	
<p>11. LINE OFFICER SIGNATURE</p>		<p>12. TITLE District Ranger</p>			<p>13. DATE</p>	

JHA Instructions (References-FSH 6709.11 and .12)

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 line officer approving the JHA. The line officer acknowledges that employees have read and understand the contents, have received the required training, and are qualified to perform the work project or activity.

Blocks 1, 2, 3, 4, 5, and 6: Self-explanatory.

Block 7: 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).

Block 8: Identify all known or suspect hazards associated with each respective task/procedure listed in block 7. For example:

- a. Research past accidents/incidents.
- b. Research the Health and Safety Code, FSH 6709.11 or other appropriate literature.
- c. Discuss the work project/activity with participants.
- d. Observe the work project/activity.
- e. A combination of the above.

Block 9: Identify appropriate actions to reduce or eliminate the hazards identified in block 8. 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).

Block 10: The values for Severity, Probability, and the overall Risk Assessment Code (RAC) will correspond to the Risk Management Matrix (attached).

Block 11: The JHA must be reviewed and approved by the appropriate manager / supervisor, as identified in the Risk Decision Authority Matrix.

Block 12 and 13: Self-explanatory.

Emergency Evacuation Instructions (Reference FSH 6709.11)

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.

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:

SIGNATURE	DATE	SIGNATURE	DATE
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6713.4 - Exhibit 01
Risk Management Matrix

Safety Risk Assessment Codes						
HAZARD PROBABILITY						
		Frequent	Likely	Occasional	Seldom	Unlikely
		A	B	C	D	E
SEVERITY	Catastrophic	I	Extremely High (RAC 1)	High (RAC 2)		Medium (RAC 3)
	Critical	II	Extremely High (RAC 1)	High (RAC 2)	Medium (RAC 3)	Low (RAC 4)
	Marginal	III	High (RAC 2)	Medium (RAC 3)	Low (RAC 4)	
	Negligible	IV	Low (RAC 4)			

6713.4 – Exhibit 02

Severity	Effect
Catastrophic I	Death or permanent disability, system loss, major property damage
Critical II	Permanent partial disability, temporary total disability in excess of three months, major system damage, significant property damage
Marginal III	Minor injury, lost workday mishap, compensable injury/illness, minor system damage, minor property damage
Negligible IV	First aid or minor medical treatment, minor system impairment

6713.4 – Exhibit 03

Probability	
A. Frequent	The event occurs often, frequently, or with regularity in one's career or the life cycle of equipment items
B. Likely	The event occurs periodically with some regularity but not frequently enough to be predictable
C. Occasional	The event occurs sporadically but not with consistent regularity or predictability in ones career of the life cycle of equipment
D. Remote	Possible to occur but the chances of the event occurring are remote
E. Unlikely	In this case, it is unlikely the event will ever occur