

U.S. Department of Agriculture Forest Service	WORK PROJECT/ACTIVITY Mushing – Wilderness Travel by Dog Team	LOCATION Superior National Forest	UNIT 05 – Kawishiwi
JOB HAZARD ANALYSIS (JHA) References – FSH 6709.11 and -12	NAME OF ANALYST USFS Musers	JOB TITLE	DATE PREPARED 11/2005

TASKS/PROCEDURES	HAZARDS	ABATEMENT ACTIONS
		Engineering Controls * Substitution * Administrative Controls * PPE
Winter travel by dogsled, ski and snowshoe	a) Cold temperatures and wind-chill, leading to frostbite and hypothermia	Dress appropriately (in layers of wool and/or polypropylene/fleece, along with an outer wind jacket and pants, subtracting them to avoid over-heating, adding them to avoid a chill). Wear flexible, breathable boots or mukluks to avoid moisture build up in foot insulation. Increase food and drink intake to maintain higher energy levels needed to stay warm in a cold winter environment. Bring a complete change of clothing and boot liners on day trips and overnights.
	b) Weather related hazards such as white out conditions and large accumulations snow or rain.	PPE: Have snow goggles for operating in blowing snow conditions. Be prepared mentally and physically for strenuous trail breaking with large accumulations of new snow. Carry snowshoes to break trail if heavy snow is anticipated. Use raingear and/or take shelter in winter rain conditions likely to soak gear if getting out of the woods is not an option.
	c) Thin lake ice, areas around open/moving water	Anticipate thin ice areas. Check questionable areas while on skis or snowshoes to distribute weight over larger area. Probe with ski pole and/or axe to determine ice thickness. Carry ice picks (nails protruding from the end of dowels), to pull self out of water onto ice in case of breakthrough. Carry a readily accessible throw rope. Go over an emergency action plan with partner on what to do in case someone is immersed in Icy water and needs to be re-warmed. Carry fuses or other "sure-fire" fire starting devices and extra warm clothes and/or insulation such as sleeping bags.
	d) Dog fights	Be familiar with the general nature of the sled dogs under your control. Anticipate and mitigate situations that have potential to make the dogs uncomfortable or aggressive towards each other, such as bunching up. Break up a dog fight by firm commands, keeping self out of the fight. If fighting dogs do not respond to verbal commands, tools of persuasion such as a blunt stick wrapped in a foam pad should be used at a distance that protects the musher. Use the instrument on the dogs in such a way that deters them from fighting but does not injure them. Any dog with a common tendency to fight should be dropped from the team.
	e) Getting tangled, caught and dragged by ropes and harnesses on a moving dogsled	Be aware of your body position in relation to the gang line, tug lines, harnesses, and sled rigging. Stay out of positions that could result in rope entanglement if the dog team starts unexpectedly. Carry an accessible, sharp knife to cut ropes in case of entanglement.
	f) Bright sun	Wear PPE, including sunglasses, brimmed hat, and sunscreen.

TASKS/PROCEDURES	HAZARDS	ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
	g) Stranded by loss of dog team compromising musher safety. Dog injury probable, leading to potential partnership and financial loss	Check in with district daily and travel with a partner. Carry survival gear on your person, including food, water, matches, knife, and radio. Have hardware on hand to secure dog team when necessary, i.e.: ropes, ice-screws etc.... always Anticipate problem areas and situations (situational awareness) as well as mitigations to control team.
	h) Brush and branches on trails and portages	Anticipate hazards by scouting trails before travelling with dogs. Brief partners of hazards and wear PPE, including eye, head and hand protection.
	i) Encountering other dog teams on narrow trails	Anticipate where close encounters may occur and look ahead. Have dogs in control and exercise caution on hills where the speed of the dogs is harder to control. Have an escape plan. Stop dog team and pull them off the trail when encounters occur.
Loading and unloading heavy, awkward materials onto dog sled	a) Unsafe lifting techniques	Good physical conditioning and proper lifting techniques. Lift heavy objects with legs instead of back. Think projects through, take your time, and ask for help.
First Aid	a) Injury to self or dogs	Have in possession a First Aid kit sufficient enough to administer first aid for all types of injuries to people and dogs.

LINE OFFICER SIGNATURE	TITLE	DATE
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JSA Instructions

The JSA shall identify the location of the work project or activity, the name of employee(s) writing the JSA, the date(s) of development, and the name of the appropriate line officer approving it. 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.

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 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.
- d. PPE (least desirable method of abatement). For example, using hearing protection when working with or close to portable machines (chain saws, rock drills, portable water pumps)
- e. A combination of the above.

Block 10: The JSA must be reviewed and approved by a supervisor.

Block 11: List all recommended and required PPE relevant for ob/activity.

Emergency Evacuation Instructions

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 work site.

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 work site (road name/number), identifiable ground/air landmarks.
- d. Radio frequency(s).
- e. Contact person.
- f. Local hazards to ground vehicles or aviation.
- g. Weather conditions (wind speed & direction, visibility, temp).
- h. Topography.
- i. Number of person(s) to be transported
- j. Estimated weight of passengers for air/water evacuation.

The items listed above serve only as guidelines for the development of emergency evacuation procedures.

JSA and Emergency Evacuation Procedures Acknowledgement

As supervisor I acknowledge that the following employees have participated in the development of this JSA, accompanying evacuation procedures and have also been briefed on the provisions thereof:

Supervisor's Signature:
