Wilderness Awareness Workshop

# Case Study Discussion Form

**1. Issue:** Methods of access for installation and removal of fire-related equipment in Wilderness.

**2. Situation:** Each summer in the Frank Church – River of No Return Wilderness, the Forest Service manages wild land fires. Management of the fires often involves the need for installation, maintenance, and removal of fire-related equipment such as radio repeaters, weather stations, and fire pumps. This equipment is often placed in locations that are remote, on ridge tops, off trail or near rough trails, and far from trailheads. Some of the equipment, such as radio repeaters, must be handled carefully and contains delicate electronic equipment. Some of the equipment, such as fire pumps and accessories, are bulky and heavy. During an emergency fire management situation, approval for use of helicopters to transport the equipment into the Wilderness is often requested and authorized. Once equipment is installed, it often requires maintenance – scheduled and unscheduled. For example, batteries that power radio repeaters need to be changed at a defined interval or equipment may malfunction and require repair. After the fire emergency is over, the equipment needs to be removed and any equipment-related impacts need to be rehabilitated. District packers, riding stock and pack stock are available for transportation and transportation of equipment.

**3. Management Question(s):** What method should be used to access fire-related equipment for its maintenance and removal during and after a wild land fire emergency?

**4. Direction/Guidance:**

**a. What does the Wilderness Act say?**

**PROHIBITION OF CERTAIN USES**

 (c) Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

**SPECIAL PROVISIONS**

 (d) The following special provisions are hereby made:

 (1) Within wilderness areas designated by this Act the use of aircraft or motorboats, where these uses have already become established, may be permitted to continue subject to such restrictions as the Secretary of Agriculture deems desirable. In addition, such measure may be taken as may be necessary in the control of fire, insects, and diseases, subject to such conditions as the Secretary deems desirable.

**b. What is your agency policy?**

2324.23 - Fire Management Activities. Conduct all fire management activities within wilderness in a manner compatible with overall wilderness management objectives. Give preference to using methods and equipment that cause the least:

 1. Alteration of the wilderness landscape.

 2. Disturbance of the land surface.

 3. Disturbance to visitor solitude.

 4. Reduction of visibility during periods of visitor use.

 5. Adverse effect on other air quality related values.

Locate fire camps, helispots, and other temporary facilities or improvements outside of the wilderness boundary whenever feasible. Rehabilitate disturbed areas within wilderness to as natural an appearance as possible.

2326 - USE OF MOTORIZED EQUIPMENT OR MECHANICAL TRANSPORT IN WILDERNESS

2326.02 - Objectives

 1. Accomplish management activities with nonmotorized equipment and nonmechanical transport of supplies and personnel.

 2. Exclude the sight, sound, and other tangible evidence of motorized equipment or mechanical transport within wilderness except where they are needed and justified.

2326.03 - Policy

 1. Ensure that Forest Service employees acquire and maintain necessary skills for primitive travel by foot, horse, canoe, or other nonmechanical means and the use of hand tools. For definitions see FSM 2320.5.

 2. Do not approve the use of motorized equipment or mechanical transport unless justified as described in 2326.1. For procedures and examples see FSH 2309.19. For definitions see FSM 2320.5.

2326.1 - Conditions Under Which Use May Be Approved. Allow the use of motorized equipment or mechanical transport only for:

 1. Emergencies where the situation involves an inescapable urgency and temporary need for speed beyond that available by primitive means. Categories include fire suppression, health and safety, law enforcement involving serious crime or fugitive pursuit, removal of deceased persons, and aircraft accident investigations.

 2. Aircraft or motorboat use established before the area was designated as wilderness by the Act of 1964 or subsequent wilderness legislation.

 3. Exploration and development of valid existing mineral rights (FSM 2323.7).

 4. Access to surrounded State and private lands and valid occupancies (FSM 2326.13).

 5. To meet minimum needs for protection and administration of the area as wilderness, only as follows:

a. A delivery or application problem necessary to meet wilderness objectives cannot be resolved within reason through the use of nonmotorized methods.

b. An essential activity is impossible to accomplish by nonmotorized means because of such factors as time or season limitations, safety, or other material restrictions.

c. A necessary and continuing program was established around the use of motorized equipment before the unit became a part of the National Wilderness Preservation System, and the continued use of motorized equipment is essential to continuation of the program.

d. Removal of aircraft wreckage when nonmotorized methods are unsuitable.

Specify, for each wilderness, the places and circumstances in which motorized equipment, mechanical transport, or aircraft are necessary for protection and administration of the wilderness and its resources in the forest plan.

The Line Officer approving the use of motorized equipment, aircraft, or mechanical transport shall specify what uses of that equipment are suitable and will have the least lasting impact to the wilderness resource. Schedule use of this equipment to minimize impact on wilderness visitors.

 **c. What does your forest plan or wilderness plan say?**

FC-RONR Wilderness Management Plan:

(III)(G)(3)(c)(3) Accomplish fire suppression using methods and equipment which least impacts the Wilderness.

(III)(G)(3)(c)(4) Restrict the use of motorized equipment to that which is essential to safe, efficient accomplishment of the fire management plan direction and is approved by the Forest Service.

 (III)(G)(3)(c)(5). The use of helicopters for demobilization is limited to cases where the Forest Supervisor determines the use is necessary to meet other fire emergencies, for safety, or when removal by non-motorized means would create significant impact on the wilderness resource.

**5. What are your management options?**

*Remember to split this minimum requirements decision making process into two parts:*

 *Step 1 – Is any administrative action necessary?*

 *Step 2 – If action is necessary, what is the minimum tool/method that will cause the least*

 *degradation of the wilderness resource and character?*

Step 1: Is administrative action necessary? \_\_\_\_ YES \_\_\_\_\_ NO

 Why?

Step 2: If the answer to Step 1 is YES, administrative action is necessary, then discuss the following

 alternatives and others that your group develops:

1. Access via helicopter.

2. Access via foot or riding and pack stock.

3. Repackage the equipment for transport by pack stock.

4. Additional resources and/or training improvements.

5. Modification of equipment or use of different equipment.

6. Use observers rather that RAWS.

7. Use of satellite phones rather than radios.

8. Locate equipment outside Wilderness.

What other alternatives are feasible?

**6. What is your decision?**

**7. What is the rationale for your decision?**

The rationale should link the decision made to wilderness management objectives, law, policy, forest plan standards and guidelines, etc. and explain how this decision best protects the wilderness character while addressing the problem in a feasible manner.

**8. What additional constraints are necessary to minimize disturbance to the wilderness resource and character?**

What mitigation measures are necessary?

 Timing, location, or frequency of activity?

 Maintenance requirements?

 Standards or design requirements?

 Monitoring?

**Actual Decision** (if made):

During the 2002 fire season, radio repeater maintenance and removal was performed via helicopter access. Weather stations were removed by helicopter. Other equipment removal (fire pumps), in some situations, was accomplished by pack stock.

**Rationale for decision:**

The rationale would link the decision made to wilderness management objectives, law, policy, forest plan standards and guidelines, etc. and explain how this decision best protects the wilderness character while addressing the problem in a feasible manner.

Regarding radio repeaters and RAWS: The equipment is fragile and bulky. The current packaging used for the radio repeater is not suitable for transportation by pack stock. Radio technicians prefer to fly in helicopters and are unwilling to hike or ride stock to access remote locations due to the longer time required and difficulty of access.

Regarding fire pumps: Fire pumps and accessories can be packaged for transportation by pack stock. Crews are available for assistance to packers with packaging of equipment for removal.