Wilderness Awareness Workshop

# Case Study Discussion

#  Non-native Invasive Species and Noxious Weeds in Wilderness

**1. Issue**:

The wilderness is experiencing a rapidly increasing outbreak of knapweed and leafy spurge, both non-native, invasive species (NNIS) and noxious weeds. Treatment methods to control or possibly eradicate the NNIS do exist but some require use of herbicides and or landing of aircraft or motorized equipment.

**2. Situation:**

The presence of the noxious weeds are the result of past human actions as well as natural forces. Lack of treatment on adjacent public and private lands, seed transport via recreation users along trail corridors, and natural spread via wind and wildlife are all contributing factors. Without some sort of control, this infestation is almost certain to spread and grow many times larger. As a result, the infestation may never be contained and a permanent conversion of vegettation type may occur. These plants have spread aggressively in other similar ecotypes.

These areas are the only know infestations of these noxious weeds in the wilderness. Confinement to the existing areas is critical and essential if eradication is ever going to be possible. Spread beyond the existing areas would threaten the remainder of the wilderness, and movement beyond the wilderness could go into adjacent non-infested agricultural lands in the valley and possibly into an adjacent National Park. None of the infestations are within active grazing allotments inside the wilderness.

Over the last couple of years, 60-100 acres of the approximately 500 infested acres of knapweed have been successfully treated by hand pulling along the main trail corridors to reduce populations of this noxious weed, and to reduce seed production and the risk of spread outside the infested area. Treatment using handpulling alone requires repeated visits to the infestations over a 3-5 year period,

Mechanical treatments to control leafy spurge are known to be unsuccesful for eradication without the use of herbicides. Despite repeated efforts, reliance exclusively on hand pulling as the primary treatment method has slowed the spread but has not totally kept leafy spurge from spreading. Use of herbicide on some nearby private lands, in conjunction with hand pulling, has been successful at containing the plant, when spraying is conducted for a minimum of five consecutive years.

Control or containment activities outside the wilderness are important, but will not be sufficient. The infestation has entered the wilderness and is spreading further into the wilderness each year. The area inside the wilderness must be treated in order to have any effect on spread of the noxious weed.

Use of a helicopter to transport personnel and equipment would speed up the treatment operation and could minimize the impacts of crews camping and traveling in the wilderness.

Public input from the local county governments and adjacent landowners is entirely in favor of agressive weed treatment using herbicides in wilderness.

**3. Management Questions:**

1) Is management action necessary in wilderness to attempt to control or eradicate the infestations of knapweed and leafy spurge?

2) IF management action is required in wilderness, what methods and tools are the minimum necessary?

**4. Direction/Guidance**:

1. What does the Wilderness Act and subsequent legislation say?

 Section 2(a) . Purpose of wilderness:

* to insure that a growing population and increasing mechanization does not occupy and modify all areas leaving no lands in their natural condition
* to secure for the American people of present and future generations the benefits of an enduring resource of wilderness

 Wilderness shall be administered :

* + in such manner as will leave them unimpaired for future use and enjoyment as wilderness to provide for the protection of these areas
	+ for preservation of their wilderness character
	+ for the gathering and dissemination of information regarding their use and enjoyment as wilderness;

Section 2(c) Definition of wilderness:

* an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain.
* land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable
* has outstanding opportunities for solitude or a primitive and unconfined type of recreation
* is to be preserved in an unimpaired condition
* may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Section 4(b) Purpose of wilderness

“wilderness shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.”

Section 4 (c) Prohibition of certain uses

 “except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act ….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.”

Section 4 (d) Special Provisions

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.

1. **What is the agency policy?**

# FSM 2320 – Wilderness Management

2323.04c - Regional Forester. Unless specifically reserved to the President (FSM 2323.04a) or the Chief (FSM 2323.04b) or assigned to the Forest Supervisor (FSM 2323.04d) or the District Ranger (FSM 2323.04e), the Regional Forester is responsible for approving all measures that implement FSM direction on the use of other resources in wilderness. Specific responsibilities include but are not limited to:

 9. Approving the use of pesticides within wilderness.

1. **What does the unit or wilderness plan say?**

*Insert or furnish a handout of relevant forest or wilderness plan direction, standards or guidelines.*

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

Step 1: Based on an analysis of law, agency policy, other valid rights, and possible other non-wilderness mitigations of the problem, is it necessary to take **any** management action in wilderness to address the issue and resolve the problem?

\_\_\_\_ YES \_\_\_\_\_ NO Why?

***Use the Minimum Requirements Decision Guide (MRDG) handout and the***

 ***questions listed for Step 1in the MRDG to assess the issue presented in this case study.***

If the answer is YES, summarize the rationale and proceed to Step 2 of the MRDG.

If the answer is NO, stop the analysis here.

Step 2: Identify possible alternatives which include both methods and tools. Possible alternatives for actions inside wilderness could include those listed below. Can you think of additional, less intrusive methods or tools that should be considered?

Alt#1: Herbicide use by backpack and horseback spraying in the spring of the year. Helicopter would be used to move herbicide, people and supplies to treatment areas.

Alt#2: Herbicide use by backpack and horseback spraying in the spring of the year. Non-mechanical transport methods (foot and stock travel) would be used to move herbicide, people and supplies to treatment areas.

Alt#3: Handpulling and herbicide use by backpack and horseback spraying in the spring of the year. Helicopter would be used to move herbicide, people and supplies to treatment areas.

Alt#4: Handpulling and herbicide use by backpack spraying in the spring of the year. Non-mechanical transport (foot and stock) would be used to move herbicide, people and supplies to treatment areas.

Alt#5: Handpulling only. No mechanical transport or landing of aircraft.

No herbcide use.

Alt#6: No Action, no weed treatment

Are any other alternatives feasible?

***Use the Minimum Requirements Decision Guide (MRDG) handout and the***

 ***questions listed for Step 1 to assess the issue presented in this case study.***

**6. What is your management decision?**

 Which alternative or combination of alternatives is the minimum tool ?

 Include necessary mitigation measures here.

**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 exlain 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?**

 knTiming, location, or frequency of activity?

 Maintenance requirements?

 Standards or design requirements?

 Monitoring?

**Actual Decision: Non-Native Invasive Species and Noxious Weeds**

(Frank Church River of No Return Wilderness, Idaho)

**6. What is your management decision?**

Which alternative or combination of alternatives is the minimum tool ?

Alternative #4: Handpulling and herbicide use by backpack and horseback spraying in the spring of the year. Non-mechanical transport (foot and horse) means would be used to move herbicide, people and supplies to treatment areas.

What mitigation measures will be necessary?

-Strictly follow precautions in application of herbicide, especially around water and sensitive species.

 - If crews overnight in wilderness, follow LNT camping practices, utilize existing, already impacted campsites

 of a sufficient size that will accommodate use without expansion.

- Travel only on trails except when necessary to locate infestations..

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

Effective control with minimum use of herbicide and non-mechanical transport methods.

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

Timing, location, or frequency of activity?

-Where possible, avoid high use periods of recreation, and consider weekday operation only.

Maintenance requirements?

 None.

Standards or design requirements?

 - Contact adjacent land owners and engage counrty weed management agency to asist in treatment

 of private lands.

 - Design and implement an effective public information and education program.

 - Insure accomplishment of weed treatment on adhacent public lands

Monitoring?

-Conduct effectiveness monitoring to minimize repeated treatments.