Wilderness Awareness Workshop

# Case Study Discussion Form

**1. Issue:** Non-native fish in wilderness streams and stocking Gila Chub.

**2. Situation:** Non-native fish exist in various streams in this wilderness. These fish are out-competing the native fish that live in the same streams. Non-native fish impact native vertebrates and invertebrates, including the sensitive Sabino Canyon Damselfly and the sensitive lowland leopard frog. Non-native fish also cause the disruption of of nutrient recycling, which has far reaching consequences for the biotic communities supported by these streams. The Forest and the State Game and Fish Department also want to introduce Gila Chub (proposed endangered), and those efforts will be hampered if the non-native fish are not eradicated.

The preferred eradication method is the use of piscicides, because this is the only known method that consistently produces the desired results. Prior to application of the piscicides, all the native fish are shocked, captured and removed, and kept alive. After application, and when the water is deemed “safe”, the native fish are returned to the creek.

Access to the eradication site is very difficult. The 2.5 mile trail leading to the site is steep, eroded, and traverses granite outcroppings along canyon walls. Approximately 1,200 pounds of equipment and materials would be required. This includes chemicals mixed with sand, 75 one gallon plastic jugs, six oars (to stir the pools), 3 backpack fish shockers, waders, 3 cargo packs, individual PPE, and first aid kits. Work would be done in the hottest part of the year, when temperatures usually exceed 100 degrees. The water source would be unfit to drink both because of the treatment as well as algae blooms, so water would need to be brought in as well as food, camping gear, and the equipment and materials mentioned above. Twelve people would be working on the project for 3 days.

**3. Management Question(s):**

a) Is management action necessary in wilderness to eradicate non-native fish and stock Gila Chub?

b) IF management action is necessary, what is the minimum necessary method and tool?

- OR -

What method or tool should be used to minimize impairment or degradation of the wilderness resource, character and values?

**4. Direction/Guidance:**

**a. 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.”

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

See Agency Policy Handout for direction regarding minimum requirements and the use of motorized equipment, landing of aircraft, etc. in wilderness.

See FSM 2326.1 – for conditions under which motorized equipment and mechanical transport may be approved.

2323.34a - Stocking Programs. In cooperation with the States, develop fish-stocking programs that meet wilderness management objectives. Recognize the probability of increased visitor use of stocked waters and their full impact and effect on the wilderness resource. Direct practices at achieving quality fishing opportunities. Regional Foresters shall develop with each State a supplement to the State-Forest Service Memorandum of Understanding (FSM 2600) that establishes a stocking policy for each wilderness. Spell out basic stocking decisions in the forest plan or in implementation schedules for each wilderness.

2323.34b - Stocking Methods. Stocking shall normally be done by primitive means, however, Regional Foresters may permit dropping of fish from aircraft for those waters where this practice was established before the area was designated a wilderness. Conduct aerial stocking pre-or post-visitor seasons. Landings are prohibited. Specify mitigation for stocking methods in wilderness implementation schedules.

2323.34c - Stocking Policy

1. Do not stock exotic species of fish in wilderness. The order of preference for stocking fish species is:

a. Federally listed threatened or endangered, indigenous species.

b. Indigenous species.

c. Threatened or endangered native species if species is likely to survive and spawn successfully.

d. Native species if species is likely to survive and spawn successfully.

2323.34f - Chemical Treatment. Chemical treatment may be used to prepare waters for reestablishment of indigenous, threatened or endangered, or native species, or to correct undesirable conditions caused by human influence (FSH 2309.19). The Regional Forester approves all proposed uses of chemicals in wilderness (FSM 2150).

**Excerpts from “POLICIES AND GUIDELINES FOR FISH AND WILDLIFE MANAGEMENT IN NATIONAL FOREST AND BUREAU OF LAND MANAGEMENT WILDERNESS”**

**(FS BLM & IAFWA‑‑August 1986)**

The emphasis is on the management of the area as wilderness as opposed to the management of a particular resource. This language is viewed as direction that all management activities within wilderness be done without motor vehicles, motorized equipment, or mechanical transport, unless truly necessary to administer the area or specifically permitted by other provisions in the Act. It means that any such use should be rare and temporary; that no roads can be built; and that wilderness managers must determine such use is the minimum necessary to accomplish the task. Any use of motorized equipment or mechanical transport requires advance approval by the administering agency.

1. CHEMICAL TREATMENT

Chemical treatment may be necessary to prepare waters for the reestablishment of indigenous species, to protect or recover Federally listed threatened or endangered species, or to correct undesirable conditions resulting from the influence of man. Species of fish traditionally stocked before wilderness designation may be considered indigenous if the species is likely to survive. Undesirable conditions and affected species shall be identified in wilderness plans.

Guidelines

1. Use only registered pesticides according to label directions.
2. In selecting pesticides, give preference to those that will have the least impact on non‑target species and on the wilderness environment.
3. Schedule chemical treatments during periods of low human use, insofar as possible.
4. Immediately dispose of fish removed in a manner agreed to by the administering agency and the State agency.
5. FISH STOCKING

Fish stocking may be conducted by the State agency in coordination with the administering agency, using means appropriate for wilderness, when either of the following criteria is met: (a) to reestablish or maintain an indigenous species adversely affected by human influence; or

(b) to perpetuate or recover a threatened or endangered species.

Selection of species for stocking will be determined jointly by the administering agency and the State agency. Exotic species of fish shall not be stocked. The order of preference for stocking fish species is (a) Federally listed threatened or endangered indigenous species, (b) indigenous species. Species of fish traditionally stocked before wilderness designation may be considered indigenous if the species is likely to survive. Numbers and size of fish and time of stocking will be determined by the State agency.

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

1. **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

Impairment or degradation of the wilderness resource and character?

**Step 1**: Is administrative action necessary in wilderness to eradicate non-native fish and stock Gila Chub?

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

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

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?

If the answer is NO, stop the minimum requirements analysis here.

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

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

or impairment of the wilderness resource, character, and values?

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

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

Identify possible alternatives which include both methods and tools. Can you think of additional, less intrusive methods or tools that should be considered?

***Note – possible or real alternatives for the case study can be listed here or the participants can be***

***prompted to develop them.***

A. No action

B.

C.

D.

Are any other alternatives feasible?

**6. What is your decision?**

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, unit plan standards and guidelines, etc. and exlain how this decision best protects the wilderness character while addressing the problem in a feasible manner.

1. Was it necessary to take any action?
2. If so, was the action chosen the minimum necessary to meet stewardship goals?

c) If so, were the tools used the “minimum necessary to accomplish the chosen action

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

Timing, location, or frequency of activity?

Maintenance requirements?

Standards or design requirements?

Monitoring?