

Adaptive Management for the Little Snake Resource Area: Workshop Summary

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1) Workshop Description

The adaptive management workshop on January 15, 2005 was a great experience for me, and from what I have heard, for the participants as well. The objective of the workshop was to give NWCOS participants a hands-on experience with the adaptive management process for an issue that the RMP will be addressing (OHV use). It was an educational experience, rather than a decision making venue. The adaptive management issue that we focused on was off-highway vehicle (OHV) use in the Little Snake Resource Area.

We began the day with a brief review of adaptive management and discussed the first step to an adaptive management plan: creating a system model.

Creating a system model

Participants were provided with lists of important components and processes that they might want to include in their system model. This list was compiled from pre-workshop interviews where I discussed important system components with interested NWCOS participants, BLM employees, and CSU professors.

We divided into four groups of about 5 people and groups created post-it notes with components they would like to include in the model. They then drew arrows between the post-its to represent the interconnectedness of the system. The end result was four similar, yet unique, system models that depict how OHV use interacts with the Little Snake Resource Area. Participants learned about the interconnectedness and complexity of the system and listed system uncertainties. The system models and knowledge gained from the model creation exercise provided the basis for further development of an adaptive management plan.

Goals and Objectives

After a brief presentation on how to write goals and objectives, individuals recorded their goals and objectives with respect to OHV use in the Little Snake Resource Area on flip charts at the front of the room. We then discussed these goals and objectives as a group and, with limited word-smithing, agreed upon one goal and 4 objectives that we would use to follow through with the rest of the adaptive management plan.

Strategies and Activities

Next, there was a brief presentation of possible strategies and activities for managing OHV use. Participants then divided into their small groups and were assigned one of the four objectives from the previous exercise. They developed possible strategies and activities based on the assigned goal and objective.

Evaluation Questions

The small groups then developed evaluation questions that were specific to their objective. Evaluation questions help to focus your monitoring by keeping you on track—why are you collecting information? How would you know that the OHV strategy is moving you in the right direction?

Indicators

Groups then chose indicators—on-the-ground measurements to help you understand the system's response to management actions.

Comparisons

Participants determined that baseline data with which to compare your indicators is a key component of an adaptive management plan.

Outlining the Monitoring Plan

There was a brief presentation on how to clearly outline a monitoring plan that addressed the following questions:

1. What "data" do you need and where will you get it?
2. What are your *analysis* needs?
3. *Who* will accomplish the necessary activities?

Trigger Points

The small groups then developed trigger points for the indicators that they choose. A trigger point can be a critical minimum or threshold, existing standard, or agreed upon target. When an indicator reaches the trigger point, a change in management is necessary because the management strategy/ action did not succeed in bringing you closer to your objective and you have learned that a new strategy is necessary—the adaptive management loop must be closed, management must adapt to the new knowledge about the system.

When discussing trigger points, participants learned the importance of seeing the system as a whole. It is important to understand the interconnectedness of the system by referring to the system model to create a management plan. Consider the following example:

Objective: decrease erosion by 30% in 2 years,

Strategy: limit OHV use on selected roads where erosion is a problem,

Indicators: number of OHV users and photo points,

Comparison: Baseline/ starting point

Trigger point: 10% increase in erosion.

Results: After one year of limited OHV use on these roads, your data evaluation shows that there has been a 20% increase in erosion. However, you hypothesize that this is a result of particularly heavy rains, not because of over use of OHVs. In this manner, you should have included precipitation as an indicator in the system that warrants monitoring too. Looking back at the system model we see that indeed we did draw an arrow between OHV and erosion and also erosion and precipitation, and therefore we should include precipitation measurements in our monitoring plan.

2) Common Concerns Regarding Adaptive Management

Below are a few of the key concerns that were mentioned by participants at the workshop.

- 1) How can we employ *active* adaptive management, that involves the use of control areas, in such a complex, diverse, and multiple use area? The response to this question is that it is not always possible to have a control area. However, if you think "outside-the-box", it might be possible to develop creative solutions. For example, with respect to OHV use, you might use a wilderness area as a control area, keeping in mind that the wilderness area may only serve as a control for similar ecological sites that are used by OHVs.
- 2) Adaptive management is complex, detailed, and time consuming. How can we do adaptive management for the diverse and numerous land uses in the Little Snake Resource Area? Some group members mentioned that we may need to pick and choose where and when to employ adaptive management, and seek volunteer help from land users (i.e. OHV users, ranchers, hunters, etc.).

- 3) Valid Existing Rights: How can we carry out adaptive management plans without infringing on valid existing rights? For example, since the adaptive management approach accepts that our knowledge is incomplete (with respect to the system at hand), what if our monitoring shows that a current management strategy must change to one that eliminates a valid existing right?

3) End of workshop round-robin feedback/ comments

a) Common ideas:

- 1) The workshop provided a good learning experience as to how NWCOS can go through the adaptive management process. Participants learned the problems and questions they will need to ask when creating the plan.
- 2) The system model the group created is the backbone to the adaptive management plan (many people felt they could have used more time to work on the model). Understanding the system relationships is very important but also difficult.
- 3) The workshop asked the right questions to create an AM plan. The AM process presented in this workshop was right on with goals, objectives, evaluation questions, indicators, comparisons, triggers, etc.—this is the adaptive management process and is the same process BLM and NWCOS will be facing.
- 4) Many people mentioned that this workshop helped them to realize that adaptive management is “detailed”, “complex”, a “lot of work”, and a “huge task”. Leaving them asking themselves: How can we successfully do adaptive management?
- 5) Not everything is an adaptive management issue, there may need to be some prioritization for adaptive management.
- 6) Goals and objectives need to be clearly stated in order to start off in the right direction with adaptive management. As you get further along in the adaptive management process it is evident that your decisions all come back to your initial ideas (i.e. goals and objectives).
- 7) Adaptive management must “adapt” to existing regulations.

b) Unique and important participant comments:

- 8) I appreciate that the goal is to know the system better. This might be the only goal we need.
- 9) NWCOS meetings seem to be a random expression of ideas and this workshop was more focused to help us work towards specific solutions.
- 10) I learned that there are really two sides to every coin. With respect to OHV use we need to think about needs of OHV users and work to come together.
- 11) Other universities and places of higher education should take on relationships with the BLM and community members!

4) Next Steps for NWCOS to Consider

- 1) Based on your new knowledge of the adaptive management process it might be a good idea to develop some priority issues that warrant an adaptive management approach.
- 2) When the time comes, dedicate a NWCOS meeting to creating a system model for the selected issue, and develop goals and objectives with respect to the selected issue.
- 3) Using this collaboratively developed system model, goals, and objectives, BLM staff and interested participants might go through the rest of the adaptive management process and bring their ideas back to NWCOS.

Next Steps for My Research

- 1) Post-workshop interviews will be conducted with many of the workshop participants. These interviews will provide me with feedback about the strengths and weaknesses of this adaptive management process. The interviews will also help to further develop a draft of the system model.
- 2) A second component of my project involves understanding system indicators that help the system adapt to change, rather than progress into an undesirable state. I will use the system model to understand indicators of “adaptive capacity.”
- 3) I will make a presentation to NWCOS in (late spring/ early summer?) to report on the findings from my project.