

## Fire Learning Network - Homework #4

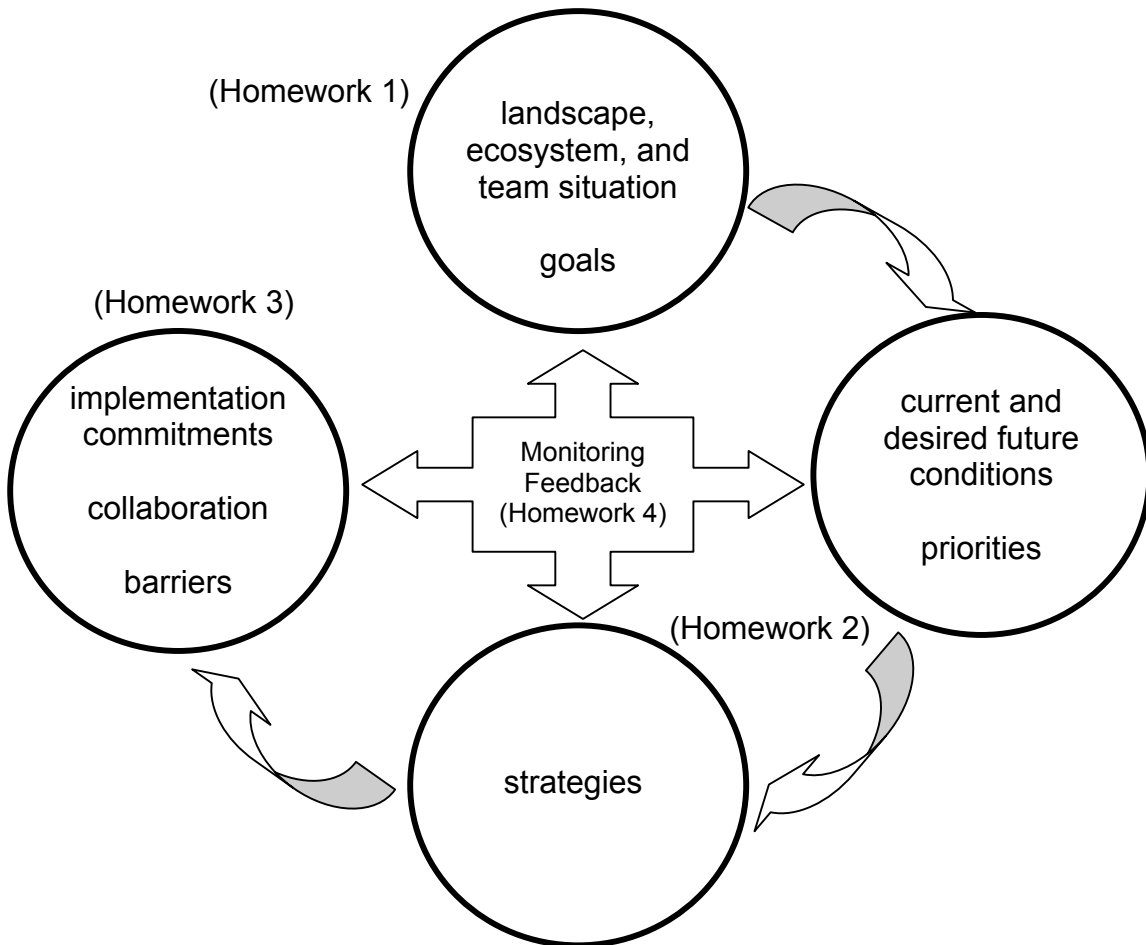
This homework is in two parts. Part 1 is due **June 29**; Part 2 is due **November 2**. The first team to submit Part 2 wins a prize. Collaboration is expected.

### I. Homework Assignment

**Goals:**

- 1) Collaboratively begin drafting a monitoring plan.
- 2) Identify strategies the team will use to be adaptive.

First let's summarize what we've already accomplished in the FLN:



**PART 1 (DUE by midnight Sunday June 29):**

**1) What monitoring is being done in your landscape project now? By whom?  
How would each of the current monitoring efforts fit into your long-term,  
landscape scale adaptive management plan?**

This includes all types of monitoring. How do partners monitor fire and other landscape attributes now?

**2) What are the most important and realistic things you are going to monitor and measure for the purposes of learning, adapting and accountability?**

For each step in the adaptive management process illustrated above, list what you will measure (e.g., indicators<sup>1</sup>).

You will have four lists. One or more of your lists may include only one item. Building on previous homework assignments or other work, list:

- a) things you will measure or observe so you know whether you are meeting your **broad goals**.
- b) things you will measure or observe so you know whether you are trending toward your **desired future conditions (ecological and social)**.
- c) things you will measure or observe so you know your **strategies** are doing what you expect (these may include things relating to threat status).
- d) things you will measure or observe to know whether you're getting better at **collaboration as a team**.

**3) Put each of your four lists of indicators into priority rank.**

**Example:**

<b>Goal</b>	<b>Goal Indicators</b>
1. restore fire regimes to within the range of natural variation within our project landscape	1. Project Scale Fire Regime Condition Class
2.	2.
3....	3....

<b>Ecological and Social Conditions</b>	<b>Ecological and Social Indicators</b>
1. seral stage mosaic of the ponderosa pine potential vegetation type	1. percent of ponderosa pine potential vegetation type in landscape in open late seral condition
2. wildfire hazard to private property	2. percent of all homes burned in wildfire
3....	3....

<sup>1</sup> For guidance on selecting indicators, see the power point presentations made by TNC's Measures and Audits team at a December 2002 workshop at: <http://www.conserveonline.org/experimental/m&a:internal&action=buildframes.action> (or go to: <http://www.conserveonline.org> then "Measures & Audit" link, then "Project Measures Workshop, Dec 2002").

Strategies	Strategy Indicators
1. thin and burn at least 10% of late-seral closed and mid-seral closed ponderosa pine forest every year for 5 years; burn-only 5% of mid-seral closed conditions	1. was the strategy implemented as planned (Y/N)
2.	2.
3....	3....

Partnerships	Partnership Indicators
1. project progress, even during years with severe fire seasons	1. plan completed by due date and implementation begun as soon as practicable
2.	2.
3....	3....

**Consider Part 1 as a rough first draft. It will likely change as you complete Part 2.**

**PART 2 (DUE by midnight Sunday November 2, 2003)**

**1) Monitoring Plan.**

Develop a monitoring plan that includes every indicator listed in Part 1. Be sure to include baseline monitoring of “control” conditions, if appropriate. We are **not** asking you to describe in detail how you will implement measurement of indicators (e.g., photo points, repeat aerial photography, reconnaissance hikes, team site visits, fire regime condition classification, population counts for endangered species). You will have opportunities to discuss these types of monitoring details at the workshop.

Only include indicators that you expect to be able to **fund and implement within the next three years**. Hence, it will be strategic to know what’s currently being measured and how that compares to what your adaptive management plan to-date says should be measured. You may choose to fill-in the gaps or just make slight modifications to current monitoring efforts to enhance their support of multi-partner monitoring.

This is part of an iterative process. If this assignment highlights a need to change previous FLN products, do so, and provide updates for the FLN Web site. For example, your team may decide it’s important to track changes in fire regime conditions (e.g., the severity of prescribed and natural fires). If so, make sure fire severity is also a component of the ecological models you started in homework 1. What you measure should inform decisions and assumptions made to-date, as well as provide robust foundations for decisions made in the future.

Put your indicators, planned measurement frequencies, current conditions and desired future conditions in a table in priority order (example below). Desired future conditions are those expected to come about over the planning period. Projects who completed homework 2 have already defined their planning periods – in most cases this was 10-50 years. Current and desired future conditions for conservation targets may be their viability ranks (i.e., very good, good, fair, poor).

**Example:**

	<b>Measurement (indicator)</b>	<b>Frequency (how often measured?)</b>	<b>Current Condition</b>	<b>Desired Future Conditions (indicate how long this will take)</b>
<b>Goal</b>				
restore fire regimes to within the range of natural variation	Project Scale Fire Regime Condition Class	Once every 5 years, or after every treatment, whichever is more frequent.	Condition class 3	Condition class 2 (within 10 years)
<b>Ecological and Social conditions (or targets)</b>				
seral stage mosaic of the ponderosa pine potential vegetation type	percent of ponderosa pine potential vegetation type in open late seral condition	Once every 5 years, or after every treatment, whichever is more frequent.	80% of ponderosa pine potential vegetation type is in mid- and late-seral closed conditions	30-40% of the ponderosa pine potential vegetation type is maintained in late seral, open conditions (within 10 years)
wildfire hazard to private property	percent of all homes burned	Once every year a wildfire or prescribed fire occurs within the project boundaries	10% of homes in the landscape burn in severe wildfire every 50 years	Zero homes burn in wildfires or escaped prescribed fires
<b>Strategies</b>				
thin and burn at least 10% of late seral closed and mid-seral closed ponderosa pine cover every year for 5 years; burn-only 5% of mid-seral closed conditions	Was the strategy implemented as planned (Y/N)?	Once every year, or more often	Not currently happening	Implementation of strategies.
<b>Partnerships</b>				
project progress is made even during fire season	Plan completed by due date and implementation begun as soon as practicable	Yearly	One funded fuel treatment plan every 10 years.	At least one funded fuel treatment plan every year.

**2) Being adaptive.**

a) Imagine yourself 10 years from now, and one of your measurements indicates that you are not on course toward your desired future conditions. Briefly explain in general how you would address this. Describe what you will do in terms of one or more of the following actions, and what might trigger different responses:

- Changing your strategy
- Refining your ecological model
- Refining your goals
- Adjusting team dynamics
- Developing a new strategy

b) Now, imagine that one of your measurements indicates that you **are** on course toward your desired future conditions. Briefly explain how you will know the outcome is the result of an implemented strategy rather than the result of something else (e.g., climate change, misunderstood ecosystem function, etc).

c) For one measurement of your choosing, describe how you would decide whether a change in your adaptive management plan is necessary immediately versus a “wait-and-see” approach. For example, from your monitoring results you may conclude that you need to redesign a strategy before you continue implementation. On the other hand, you may decide to continue to implement a strategy as-is for another year or so and wait to make a conclusion about its effectiveness. What are key components of an adaptive management plan that will allow you to make this decision with confidence?

**4) Extra Credit.**

How many file drawers of data does your program currently have that have never been analyzed?