

STANDARDS

*"Wilderness, then assumes
unexpected importance as a
laboratory for the study
of land-health."*

Aldo Leopold



Objectives and Standards

Objectives describe acceptable resource and experience conditions in measurable terms that are considered realistic and attainable so it is clear when corrective management action is needed. Standards describe the requirements that limit managers' discretion on how the desired condition might be achieved (procedures and actions that must be adhered to which are not already covered by national or regional policy directives). This unit will give examples of well-written objectives and standards, present ideas on how they are established and discuss how they are used in management.

Objectives

1. Participants can explain the difference between objectives and standards.
2. Participants can explain how objectives and standards are used.
3. Participants can write at least three objectives and standards that might be applied to their Wilderness.

Key points

- Objectives form the "heart" of the plan. They are the yardsticks for measuring success.
- Trend in conditions is more important than one snapshot in time.
- Concept of green light, yellow light, red light.

Objectives and Standards

Objectives

Measurable statements that describe the resource and experience conditions that are considered realistic, attainable in the foreseeable future, and acceptable. They are expressed in specific, measurable terms so that they can be used to clearly trigger the need for corrective management action. Objectives are statements against which existing conditions can be measured. They are established to promote achievement of desired conditions. Objectives relate to what the land and the experience is minimally expected to be like. For further discussion regarding the concept of “acceptability,” refer to Brunson 1993.

Standards

A statement of management requirements that limit the discretion of managers. Adherence is mandatory and within the control of the agency. Standards are the bounds on the methods which could possibly be used to achieve desired conditions. Standards relate to how management actions are carried out. Standards should only be imposed where there is a clear need to limit the discretion of managers to choose what they think might be the best path to achieve desired conditions. Standards should be limited to those things which are mandatory no matter what the conditions are on-the-ground. Often, standards are found in policy directives and do not need to be repeated.

Objectives may be quantitative or qualitative. Since objectives represent what is considered acceptable within the Wilderness, they are value judgements based on human values, beliefs, and desires. Scientific information regarding land capability and long-term stewardship is essential to make an informed judgment but the decision about what is acceptable is still subjective. The most effective objectives are developed through extensive dialogue among citizens, managers, and scientists.

Many program plans contain only standards. While standards are necessary, they do not help define exactly what conditions should be achieved (i.e. measures of success). Objectives are very difficult to develop but they form the “heart” of the plan and will do the most to provide management guidance. Ironically, in 1922, Aldo Leopold clearly articulated the difference between what he called machinery standards and standards of conservation (Flader and Callicott 1991):

If standards of conservation were developed, “local administrative effort could be intelligently directed for years to come. And what is more, such effort, having a definite goal, would not need nearly so much prodding in the form of machinery standards. And the time that now goes into establishing and maintaining machinery standards, could be diverted into the technical education of field men to make their efforts constantly more intelligent. ‘We don’t know where we are going, but we’re on our way’ is a laudable sentiment only up to the point where it becomes scientifically possible to state where we ought to go.”

Purpose

The difference between current conditions and objectives is what generates the need for project-level management action (i.e. are the triggers for action). Objectives should clearly define at what point there is a problem so everyone knows when corrective action will be needed. The trend in conditions is more important than one “snapshot in time.” Objectives should be used in the following way:

Green light..... Conditions meet the objective and the trend is stable or improving. Response: continue monitoring.

Yellow flashing light..... Conditions meet the objective but the trend is declining. Response: explore why conditions are declining and initiate nonrestrictive management actions to turn the situation around before the objective is violated and more restrictive actions might be needed. Increase monitoring frequency.

Red light..... Conditions do not meet the objective. Response: determine why the objective is not being met and initiate management actions that will effectively improve conditions. Increase monitoring frequency.

Considerations

- Objectives must be attainable and realistic but they also must be set to move conditions toward the desired conditions. Do not set objectives to justify existing conditions unless current conditions = desired conditions (i.e., there is no need for improvement in conditions).
- Objectives are set for the selected monitoring indicators. Some objectives will apply wilderness-wide (e.g. objectives for air quality). Other objectives will vary by zone. For example, objectives would not allow much change in conditions in a zone where the desired conditions are for very little human influence. Objectives would allow more change in a zone where it was desirable to have more human influence (e.g. accepting more bare ground on campsites so that human impact can be concentrated preventing the spread of impacts). Setting objectives by zone gives managers the ability to ensure that conditions in the most undisturbed areas don't slowly erode.
- Objectives must be developed through dialogue among citizens, managers, and scientists. Use an interdisciplinary approach. Make sure you are not setting objectives that would permit more human impact than is accepted in non-wilderness areas.
- If some flexibility in conditions is desirable before management action is triggered, then the amount of acceptable deviation should be defined. This can be done by assigning a probability factor to the objective or by clearly defining the criteria to be used in allowing exceptions. For example, a objective for the number of encounters between groups might be written as: "90% probability of 3 or fewer encounters per day." This allows some days where more than 3 groups can be encountered without triggering management action (e.g. opening week of hunting season, holiday weekend). If you use a probability factor, you need to define the season of use (i.e. 90% of how many days) and you may want to define what is the maximum number of encounters on the "exception" days.
- Monitoring information must be able to be analyzed using the objective as a "yardstick." It helps to run a set of "test" data to work out any bugs before adopting the objective.
- Consider using a photo index to depict objectives.
- A dilemma: Setting objectives assumes you can define the "zero-point" (what would conditions be like with no human influence). This is easy to do for campsite conditions (e.g. ideal is no vegetation loss) or encounters between groups (e.g. ideal is no encounters between groups). Since we want to provide for some human use, we can begin to discuss how many encounters between groups is acceptable or how much vegetation loss on campsites is acceptable. But now we are trying to develop

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objectives for identifying specifically what is acceptable in terms of human interference with natural processes. Because of the dynamic nature of these processes, there is no zero point. Rather, there is a range of variation and even the range will change over time. We want conditions to be within this range of natural variation but how do we aim for a moving target when we know so little about the range of natural variation?

See overhead from Landres 1994— “When is change beyond the range of natural variation.” Ask people to identify what assumption we are making? What happens to our assessment of whether conditions are green light, yellow light, or red light if the natural range of variation isn’t what we thought?

Given this dilemma, the best course of action is to focus on minimizing human interference with the natural process as much as possible (e.g. define how much fire suppression is acceptable, given need to protect property, adjacent land, etc.) and establish long-term monitoring programs so that knowledge of natural variation is improved.

Filters

1. Do the objectives promote conditions that meet the intent of the Wilderness Act or enabling legislation?
2. Do the objectives meet agency policy and regulations?
3. Will the objectives promote achievement of desired conditions?
4. Are objectives attainable?
5. Does the objective allow for a certain amount of deviation where some flexibility in conditions is desirable?
6. Would meeting one objective result in the inability to meet another objective?
7. Does the objective reflect what citizens, managers, and scientists consider acceptable? Is there support for the objective?
8. Can monitoring information be analyzed successfully using this objective as the “yardstick” to measure against?
9. Is the objective understandable?

Examples of Objectives and Standards

Objectives

Wilderness-wide

Priority species listed by the county weed department are not present. Canada thistle and other non-native plants occupy no more than 5% of the Wilderness.

No more than a 10% decline in lake alkalinity from baseline measurements.

Riparian conditions meet 85% of potential natural condition for the specific lake or stream type.

Picketing or tethering of recreational stock must be at least 200 feet from lakes, streams, and trails.

Party size is limited to 15 people and 25 stock. Larger groups may be allowed under permit when the following conditions are met: 1. Demonstrated low-impact skills—applicant states in writing how he/she will handle large group to minimize impact. 2. Larger group size will not violate camp, encounter, or forage utilization objectives in area requested for use. 3. The group activity is dependent upon being in a Wilderness setting. 4. The requested area is not a trailless zone.

Zones

Zone I	Zone II	Zone III
No more than 20% forage utilization	No more than 40% forage utilization	same as zone II
No campsites or corral/hitch areas with puddling class I, II, or III	25% puddling class I, 15% puddling class II, 0% puddling class III	same as zone II
No more than 2 groups encountered per day	No more than 5 groups encountered per day	No more than 12 groups encountered per day
Vegetation maybe flattened but is not lost. No fire rings or structures.	Vegetation is lost only around the fire ring or center of activity.	Vegetation may be lost on no more than 500 sq. ft. Tree roots are not exposed.
No more than 2 campsites per drainage	No more than 5 campsites per drainage	No more than 10 campsites per drainage

Standards

- Pack-in feed will be certified weed-free.
- Trail bridges will be built using natural materials and primitive skills.
- Salt for livestock will be placed in leach-proof containers.
- Fire suppression will employ minimum impact suppression techniques.
- Waters that is fishless will not be stocked.

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- Human activity will be restricted in bighorn sheep winter range from December 15 to April 30.
- Trailhead facilities will be designed to help meet condition objectives (i.e. facilities, road access, and parking lots will be developed to meet objectives for the zone which the trailhead accesses).
- All outfitters comply with the Majestic Mountain outfitter policy.

OBJECTIVES & STANDARDS

Objectives

Realistic, attainable measure of resource and experience conditions that must be achieved. Relates to what conditions are minimally expected to be like.

Purpose:

- * Form basis to compare conditions against
- * Trigger the need for management action
- * Promote achievement of desired conditions

Example:

Canada thistle and other non-native plants occupy no more than 5% of the Wilderness. Priority species listed by the County Weed Dept. are not present.

Vegetation on campsites is lost only around the fire ring or center of activity (i.e. Campsites must meet Frissell Condition Class 2).

Standards

Requirements that limit the discretion of managers. Relates to how management actions are carried out.

Example:

Pack-in feed will consist of weed-free pellets and cubes and rolled grain.

Trail bridges will be built using natural materials and primitive skills.

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HOW OBJECTIVES ARE USED



Green Light



Conditions meet the objective
Trend—Stable or improving

Response

- Continue monitoring



Yellow Light



Conditions meet the objective
Trend—Downward

- Explore why conditions are declining
- Initiate non-restricted management actions
- Increase monitoring



Red Light



Conditions do not meet the objective
Trend—Stable or downward

- Determine why objective isn't being met
- Initiate management actions to improve conditions
- Increase monitoring

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SCREENING QUESTIONS FOR OBJECTIVES & STANDARDS

- Does the objective meet the intent of the Wilderness Act?

- Is the objective and standard consistent with agency policy and regulations?

- Does the objective promote achievement of the desired condition?

- Is the objective attainable?

- Would attainment of this objective preclude the ability to meet other objectives?

- Is the objective supported by specialists, managers, and citizens?

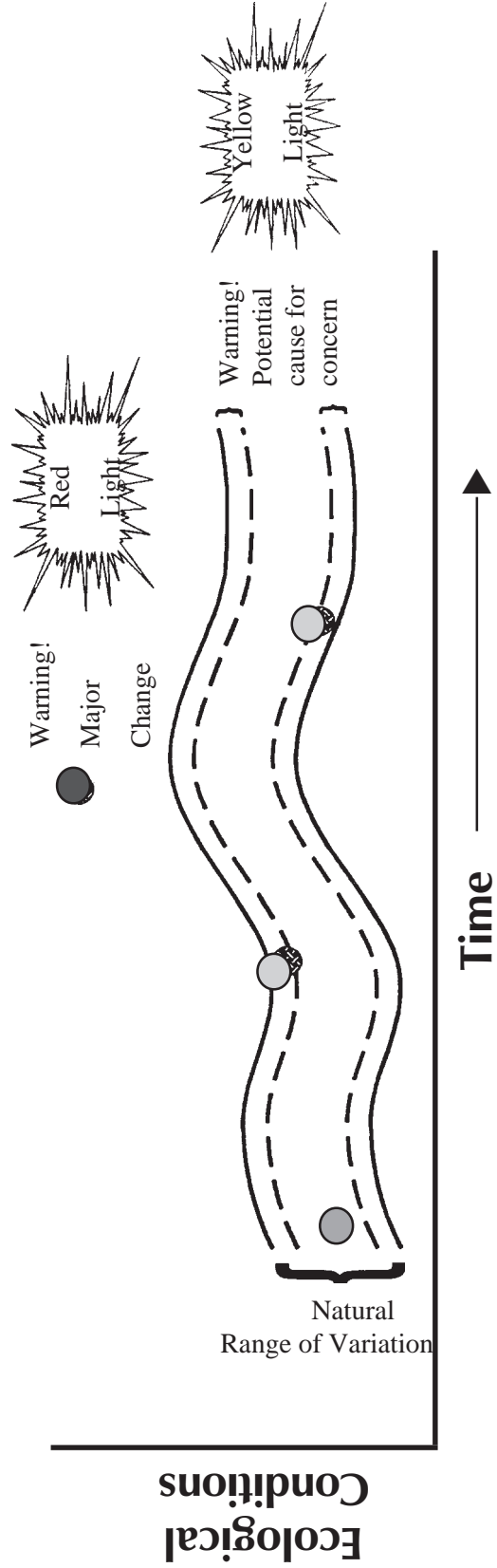
- Can the objective be measured and analyzed successfully?

- Is the objective understandable?

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WHEN IS "CHANGE" BEYOND THE RANGE OF NATURAL VARIATION?



Landres 1994

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WORKSHEET

WRITING OBJECTIVES & STANDARDS

From indicators listed on previous worksheet, try to develop some objectives and standards. Develop at least one objective and standard that would apply Wilderness-wide and one objective standard that would vary by zone.

Example Issue: multiple trails to same destination results in soil erosion and unsightly cuts in a bare hillside. Indicator: Number of trails in addition to the established "system" trail.

Zone 1: Objective is for no trails. Zone 2: System trail only. Zone 3: No more than three side trails to any lake shore from system trail.

Indicator: (indicator from previous worksheet)

Objective and Standard: Zone 1:

Zone 2:

Zone 3:

Indicator:

Objective and Standard: Zone 1:

Zone 2:

Zone 3:

Indicator:

Objective and Standard: Zone 1:

Zone 2:

Zone 3:

Indicator:

Objective and Standard: Zone 1:

Zone 2:

Zone 3:
