

The Four Cornerstones of Wilderness Stewardship

The Four Cornerstones were developed by the Arthur Carhart National Wilderness Training Center to help implement law and agency policy and to repackage the management principles to address the evolving issues of wilderness management. They represent the essence of wilderness management by reflecting the types of decisions that managers commonly have to make.

1. Manage wilderness as a whole.

AnneMarie LaRosa, Arctic National Wildlife Refuge, AK: USFWS

2. Preserve wildness and natural conditions.

Jim Kenna, Palm Springs Field Office, CA: BLM

3. Protect wilderness benefits.

Jim Bedwell, Mt. Evans Wilderness, CO: USFS

4. Provide and use the minimum necessary.

Maureen Finnerty, Marjory Stoneman Douglas Wilderness (Everglades NP), FL:
NPS

A video training tool entitled *The Four Cornerstones of Wilderness Stewardship*, along with a Discussion Guide, Worksheet and Key has been prepared. The video discusses each of the four cornerstones via interviews with one manager from each of the four federal wilderness management agencies who explains how the cornerstone was applied to a management issue in their wilderness. Copies of the video and Discussion Guide have been distributed through the Forest Service regional wilderness coordinators. If copies are unavailable they can be ordered by calling the Arthur Carhart National Wilderness Training Center at 406-243-4630 or via e-mail to schase at fs.fed.us. The Discussion Guide, Worksheet and Key are shown below.

Deciding to Keep Wilderness Wild:
Four Cornerstones for Wilderness Managers

DISCUSSION GUIDE

Arthur Carhart
National Wilderness Training Center
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How to use this DISCUSSION GUIDE

This guide has been developed to assist presenters who will be showing *Four Cornerstones for Wilderness Managers*. It is also possible to use this as enrichment while using the tape in a self-study program.

Before leading a discussion on the *Four Cornerstones*, we suggest you view the tape in its entirety at least once. You will notice the video is designed to be shown with discussion after each of the four cornerstones (there is a freeze-frame and pause in the dialogue after each summary Cornerstone is read). It is possible to use the video by running the whole tape without stopping, but it is our experience that it works better while interrupted by discussion. This guide is broken down into six sections for you to use to guide the discussions at the following points in the video: before starting the film; after each of the four Cornerstones; and at the end of the showing.

In each of these sections you will find:

- Key points that should be emphasized about either what follows (in the section “Before viewing”) or what was just covered.
- Questions to prompt discussion. These are simply suggestions—you might have better examples more applicable to your particular wilderness(es).
- Additional comments under the heading “In case they ask” (where applicable) that address common questions about certain content choices that have repeatedly come up as we’ve used this video.

If you have further questions about the use of this guide or the video, please contact your agency’s representative at the Carhart Center -- (406) 243-4682.

Before viewing

Key points

1. FOUR cornerstones. The Carhart Center tried to boil down the several longer lists of principles that have been developed to emphasize that which is unique to *wilderness* management. (For instance, these longer lists include guidelines such as “Plan and manage with public involvement and interdisciplinary science.” This is important to remember, as many wilderness stewardship questions are rooted in public values and informed by scientific research. But you would be doing this while managing *any* part of our public’s land.)

2. Discussion format: We will view a segment on each of the four cornerstones, then discuss before going on to the next one. (*Carhart Center recommends this option*)

-or-

Discussion format: We will view the entire video, with discussion to follow.

3. The video does NOT address the fine points in policy differences between the four agencies. This video focuses on the universalities that cut across agency differences. If appropriate, discuss policy differences after viewing portions of the video.

4. “Wilderness character” is complex. Both Sec. 2(a) and 4(b) of the Wilderness Act direct managers to preserve “wilderness character.” Early on, the video briefly discusses the four qualities of wilderness that are required of every area.

Carhart Center recommends the discussion leader ask participants to identify these. The “answers” are:

untrammelled (otherwise known as “wild”—NOT “untrampled”)

undeveloped (frequently called “roadless”—but it’s more than that)

natural (free from the deleterious effects of modern human technology)

possessing outstanding opportunities for solitude or primitive and unconfined

recreation (known, in short, as “outstanding opportunities”)

But each area has additional components of its character that may be unique and must be preserved as rigorously as the ubiquitous qualities.

Questions

What are the unique components of wilderness character here at our wilderness(es)?

1. Manage wilderness as a whole.

Key points

1. **WILDERNESS A SYNERGISTIC RESOURCE. PART OF ITS VALUE IS THAT IT MUST BE MANAGED HOLISTICALLY. DIFFICULT, PERHAPS, FOR MANAGERS WHO ARE USED TO MANAGING AN AREA “PRIMARILY FOR THE PRODUCTION OF WATERFOWL” OR “PRIMARILY FOR NON-MOTORIZED RECREATION” OR “THIS PORTION IS FOR WINTERING ELK, AND THAT PORTION FOR TIMBER PRODUCTION” (OR OTHER LIST OF MULTIPLE USES).**

2. **No law automatically trumps another law.** All applicable laws must be satisfied. This means, for instance, that an organism listed under the Endangered Species Act may require actions to be taken by wilderness managers that would not be taken by non-listed species, but the way that action is taken may be different than the method that would be used outside wilderness.

[More on minimum requirement will come later.]

Questions

What does managing as a whole mean here on our wilderness(es)?

Is it OK to limit use for experiential rather than biophysical reasons? How about for symbolic reasons? Anne Marie seems to imply that group size limits “set the bar very high” at the Arctic NWR Wilderness for the symbolism this place holds for all Americans. The decision was made not just to protect caribou, or harlequin ducks, but to protect the whole meaning of this area. Maintaining outstanding opportunities for solitude is appropriate (though politically difficult in places); the Act does not support limiting use for a symbolic purpose. [More on determining use limits will come later.] Limits can be based on both biophysical and social impacts, though it should be noted that research has shown the social impacts are caused more by the behavior of recreationists than numbers of recreationists. Simply limiting numbers may not be the answer.

In case they ask

FOR THE OPENING SHOT OF THE GRIZZLY, CHRIS WAS STANDING ON A ROAD, WATCHING THE BEAR WITH ABOUT 25 OTHER PEOPLE. HE WAS FARTHER AWAY FROM THE BEAR THAN REQUIRED BY DENALI NP (WHERE IT WAS SHOT). IN ADDITION, NONE OF THE INTERVIEWS FOR THIS VIDEO WERE CONDUCTED INSIDE THE BOUNDARIES OF A WILDERNESS AREA.

2. Preserve wildness and natural conditions.

Key points

1. Clarify “wildness” and “naturalness.” The former is a land management *decision* (a barren city lot might be “untrammeled”—“wild”); the latter is a *condition* of the land. The tension between these increases as habitat is fragmented – a particular problem here. (Note visual shot taken from Orocochia Mountains Wilderness to Joshua Tree Wilderness – the two are separated by I-10.)

2. “Guardians, not gardeners”: this quote from Zahniser is the genesis of our reference to wilderness stewardship, rather than management. Though some management is necessary, our emphasis should be on our role as caretakers, rather than manipulators. And in our decision to take action, we need to remember the words of ecologist Frank Egler: “Ecosystems are not only more complex than we think, they are more complex than we *can* think.” Key to restoration is knowing what caused the impact.

Questions

Are guzzlers appropriate? Questions besides construction and placement need to include mechanism for filling the tanks. But before that – what is the cause of the “need”? And can water be supplied outside the wilderness (which may mean changing human uses on adjacent land)? Also, as with any question, is there specific direction in the unit’s Congressional Act of designation. (In the case of the California Desert Protection Act, note the following language: “Management activities to maintain or restore fish and wildlife populations *and the habitats to support such populations* may be carried out within wilderness areas designated by this title and *shall* include the use of motorized vehicles by the appropriate State agencies.” (Emphasis of the unusual wording is added.)

What is natural? How far back do we go? Commonly, to conditions that existed prior to the effects of modern, technological civilization. Of course, this is a gray area. Just because there is no legal mandate to make an area “more natural” than it was at the time of designation, that doesn’t mean we can’t do it, or would want to – particularly in the reestablishment of natural processes.

What “conflicts” between wildness and naturalness do we have here? How do we decide when to take action? Non-native invasive species are a common problem. Decision would involve a) knowing the probability of success; b) being aware of whether this would be a one-time or ongoing action; and c) what would be lost by not taking action.

In case they ask

The SUV is NOT driving in a wilderness, but near one. Jim is making a point about the many pressures on public lands in southern California.

Yes, that guzzler excavation and tank placement is in a designated wilderness in the California desert. There are several such installations in several wildernesses. See comment above regarding the California Desert Protection Act.

The manatee: At the time this appears on the screen, Jim is talking about the “answer” to a problem being different in other wildernesses with “different communities of life, different assemblages of species”—such as at Everglades. The section filmed in Alaska includes shots of

bison and desert bighorn sheep; the section in Colorado includes a backpacker in Denali and canoeists in the Everglades; the section in Everglades includes cross-cut sawyers in the northern Rockies and helicopters over the Four Corners desert. So why is anyone fixated on the manatee?

3. Protect wilderness benefits.

Key points

1. Values present must be protected. Jim mentions that wildernesses don't have to have outstanding opportunities for both solitude and primitive recreation. But if both are present, both must be protected. The same is true with the optional values listed in the Wilderness Act: ecological, geological, scientific, educational, historical, scenic. All are part of the wilderness's character, which we are mandated to preserve (Sections 2(a) and 4(b)).

2. Manage a spectrum. Wilderness is at one end of that spectrum. Implied is that there *is* a spectrum. This means perhaps a range on lands we manage as well as coordinating with adjacent agencies (Jim's examples of Denver City Parks or Rocky Mountain NP). Providing opportunities for non-wilderness-dependent activities is good wilderness stewardship. (E.g., the Bass Creek horse & mountain bike trail on the Bitterroot NF. It provides opportunities to break in pack stock—reducing impacts from raw stock in the wilderness, and for bicyclists it offers a wilderness-like setting for a use prohibited in designated wilderness.) Obvious examples of coordination include having identical use limits (size, animals, fire) on adjacent wildernesses where inter-wilderness travel is common. Providing a spectrum means, perhaps coordinating *different* limits on near-by wildernesses to offer a range of experiences.

Questions

How do you balance “use and enjoyment” with “preservation in its natural condition”?

Jim says we have to take care of the biophysical environment first. But doing so doesn't mean biophysical priority only or always. Other wise there would be no trails, no recreational use at all. Wildernesses “shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use” (section 4(b)). Another judgment call—that's why you get paid the big bucks. So how are you doing it?

In case they ask

That you can't maximize more than one variable at a time was proven in the mid-18th century by the French mathematician D'Alembert. (Gifford Pinchot's dream of managing the Forests for the greatest good for the greatest number over the longest time is not possible, even if we could figure out what “the greatest good” is. Priorities or minimum limits must be set.) This reference has now been cut out of the video, but the question still might come up.

4. Provide and use the minimum necessary.

Key points

1. Agencies differ in the extent of the minimum requirement. The Park Service, by policy, extends it to all management actions. The law ties it only to the certain uses prohibited in Section 4(c). And some agencies have programmatically addressed this requirement in their policies (e.g., the Forest Service wilderness sign policy).

2. Research in Wilderness has benefits as well as impacts. Both need to be considered in evaluating whether to allow it or not. And not allowing it would be appropriate only if an exemption from the 4(c) prohibitions is required.

3. Motorized equipment is prohibited. Maureen refers to a prohibition on “mechanical equipment.” She misspoke. Mechanical *transport* is prohibited, as is *motorized* equipment. Mechanical (non-motorized) equipment (e.g., a block and tackle) is permitted.

4. Beware “decision creep.” Maureen talks about it becoming easier and easier to make exceptions for the Section 4(c) prohibitions. Example, for forty years the wolves of Isle Royale NP were studied without being touched. In the late 1980’s, a decision was made to trap some wolves for testing to determine why their population was plummeting. It was a difficult and much-debated step, as managers believed that wilderness wildlife should be untrammelled (a trap being the very definition of a “trammel”). (Remember, by NPS policy, all wilderness management actions follow the minimum requirement.) Fifteen years later, wolves are not only regularly trapped, they are radio-collared—it’s more convenient than the methods of determining movement and distribution that were used prior to trapping.

5. Congress directed that Wildernesses are to be *managed differently*. We could have a natural, wild area with outstanding recreational opportunities using all the prohibitions in Section 4(c). (It might be hard to be Undeveloped – structures and installations are developments, and the use of motorized equipment can be seen as a type of modern human occupation.) But Wildernesses are not simply areas with different qualities; they are lands that we have to manage using different techniques. In Section 4(c), Congress directed us to manage these lands differently from the way we manage the rest of our lands. The Congressional intent of establishing these areas in response to concern over “growing mechanization” extends to our agencies’ proclivity for mechanized management as well.

Questions

Do we use a two-part process here at our wilderness(es) to determine the minimum required? Is there an examples to share? Be sure to examine first if it is necessary to take *any* action. [*It is likely that there will be a separate session on the Minimum Requirements process. If so, the question section here can be greatly abbreviated.*]

What is “the extent necessary” for commercial services (Sec. 4(d)(6))? Maureen mentions this as the exception to the general prohibition to commercial enterprises in wilderness. How do we determine which activities are proper for realizing the recreational or other purposes of wilderness? What is the “need” for commercial services? Do we conduct a Needs Assessment before a permit is issued?

In case they ask

The helicopter was used to lift a dinosaur skeleton out of the Bisti/De-Na-Zin Wilderness (northwest New Mexico). All materials were carried in on foot, and the excavation was done entirely without motorized equipment. For additional information on excavations in wilderness, contact Chris Barns at the Arthur Carhart National Wilderness Training Center.

Conclusion

When using the Four Cornerstones to address a particular wilderness management issue, it is important to keep asking questions that tie back to them:

Manage wilderness as a whole

Ask: “Does my solution consider wilderness *as a whole* resource with inseparable parts? Or have I focused too heavily on only one of its components because that’s the “problem” issue of the day?”

Preserve wildness and natural conditions

Ask: “What is natural here? Is my wilderness wild? Have I untrammelled – let loose—the natural process, thereby preserving wildness? Or is that even possible at this point – has Nature’s original option been constrained by our past actions? Do I have to (at the risk of personification) ‘free’ Nature by forcing it back to some pre-impact condition, and *then* allow Nature to take its wild course? And in this restoration, have I remembered the words of Frank Egler?”

Protect wilderness benefits

Ask: “Will my action protect wilderness benefits while preserving its character? Have I taken steps to prevent the erosion (degradation, impairment) of this wilderness character and the values my wilderness holds?”

Provide and use the minimum necessary

Ask: “Have I first determined that *any* action in the wilderness is even necessary? And if so, have I truly used or provided only the minimum necessary tool or structure for the use and enjoyment of this area *as wilderness*?”

Note: application of the Four Cornerstones means we already have a plan that:

Identifies components of the wilderness character at this wilderness;

Recognizes existing and potential threats to that character; and

Sets indicators and their standards for monitoring of social and natural resource conditions, so that you can determine if wilderness character is being preserved.

Other Questions??

**Deciding to Keep Wilderness Wild:
Four Cornerstones for Wilderness Managers
WORKSHEET**

Introduction

The qualities of wilderness character required of EVERY Wilderness are:

_____ opportunities for _____

or

_____ & _____ recreation

1st Cornerstone

1. Manage wilderness as a _____.

Notes

Summary questions

Does my solution consider wilderness *as a whole* resource with inseparable parts? Or have I focused too heavily on only one of its components because that's the "problem" issue of the day?

2nd Cornerstone

2. Preserve _____ and _____ conditions.

_____ is a *condition* of the land; _____ is a management *decision*.

Notes

Summary questions

What is natural here? Is my wilderness wild? Have I untrammelled -- let loose -- the natural process, thereby preserving wildness? Or is that even possible at this point? Has Nature's original option been constrained by our past actions? Do I have to "free" Nature by forcing it back to some pre-impact condition, and *then* allow Nature to take its wild course? And in this restoration, have I remembered the words of Frank Egler?

3rd Cornerstone

3. Protect wilderness _____.

Other values which are not required to be present that are listed in the Wilderness Act include:

_____	_____
_____	_____
_____	_____

Notes

Summary questions

Will my action protect wilderness benefits while preserving its character? Have I taken steps to prevent the erosion (degradation, impairment) of this wilderness character and the values my wilderness holds?

4th Cornerstone

4. Provide and use the _____.

First determine if any action is _____; *then* determine the

The following ten uses are generally prohibited by Section 4(c) of The Wilderness Act of 1964:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Notes

Summary questions

Have I first determined that *any* action in the wilderness is even necessary? And if so, have I truly used or provided only the minimum necessary tool or structure for the use and enjoyment of this area *as wilderness*?

Deciding to Keep Wilderness Wild: Four Cornerstones for Wilderness Managers
WORKSHEET KEY

Introduction

The qualities of wilderness character required of EVERY Wilderness are that they are:

Untrammeled

Undeveloped

Natural

Outstanding opportunities for solitude **or**

primitive **&** unconfined recreation

1st Cornerstone

1. Manage wilderness as a whole.

Notes

Summary questions

Does my solution consider wilderness *as a whole* resource with inseparable parts? Or have I focused too heavily on only one of its components because that's the "problem" issue of the day?

2nd Cornerstone

2. Preserve wildness and natural conditions.

Naturalness is a *condition* of the land; wildness is a management *decision*.

Notes

Summary questions

What is natural here? Is my wilderness wild? Have I untrammelled -- let loose -- the natural process, thereby preserving wildness? Or is that even possible at this point? Has Nature's original option been constrained by our past actions? Do I have to "free" Nature by forcing it back to some pre-impact condition, and *then* allow Nature to take its wild course? And in this restoration, have I remembered the words of Frank Egler?

3rd Cornerstone

3. Protect wilderness benefits.

Other values which are not required to be present that are listed in the Wilderness Act include:

ecological

geological

scientific

educational

scenic

historical

Notes

Summary questions

Will my action protect wilderness benefits while preserving its character? Have I taken steps to prevent the erosion (degradation, impairment) of this wilderness character and the values my wilderness holds?

4th Cornerstone

4. Provide and use the minimum necessary.

First determine if any action is necessary; *then* determine the minimum tool.

The following ten uses are generally prohibited by Section 4(c) of The Wilderness Act of 1964:

permanent road

commercial enterprise

temporary road

motor vehicles

motorboats

aircraft landing

mechanical transport

motorized equipment

structure

installation

Notes

Summary questions

Have I first determined that *any* action in the wilderness is even necessary? And if so, have I truly used or provided only the minimum necessary tool or structure for the use and enjoyment of this area *as wilderness*?