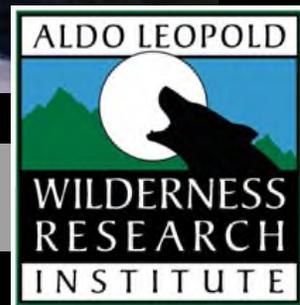


# Evaluating Proposals for Ecological Intervention in Wilderness



Beth Hahn | Peter Landres



# Wilderness Act of 1964

The mandate of the Wilderness Act is to preserve the area's "wilderness character"

**Natural**

**Untrammeled**

**Solitude or Primitive and Unconfined Recreation**

**Undeveloped**

**Other Features of Value**

## WILDERNESS ACT OF 1964 Sec. 2(c)

“A wilderness...is hereby recognized as an area where the earth and its community of life are *untrammelled* by man” (Wildness)

- freedom from intentional modern human control and manipulation



“An area of wilderness is further defined...retaining its primeval character and influence...which is protected and managed so as to preserve its *natural conditions*” (Naturalness)

- species, patterns, and processes that evolved in the area



**Altered  
disturbance  
regimes**



**Climate Change**



# **Threats to Wilderness Character**



**Habitat  
fragmentation**



**Non-native  
invasive species**

# Reality – Wilderness Ecosystems Change ...and Always Will

Does this change matter?

What is “natural”?

Has restraint been  
considered?

Should we take  
restoration actions?

If we act, what do we gain in the natural quality  
and  
what do we lose in the untrammeled quality?



# What is “Natural” in Wilderness?

## What does natural mean when ecological systems in wilderness are changing?

- Historic conditions may not be appropriate planning targets
- Emergence of novel ecosystems
- Uncertainties about both ecological changes *and* restoration efficacy



The decision to ACT or NOT ACT has both a positive and negative effect on wilderness character.

Taking restoration action compromises the *untrammelled* quality of wilderness

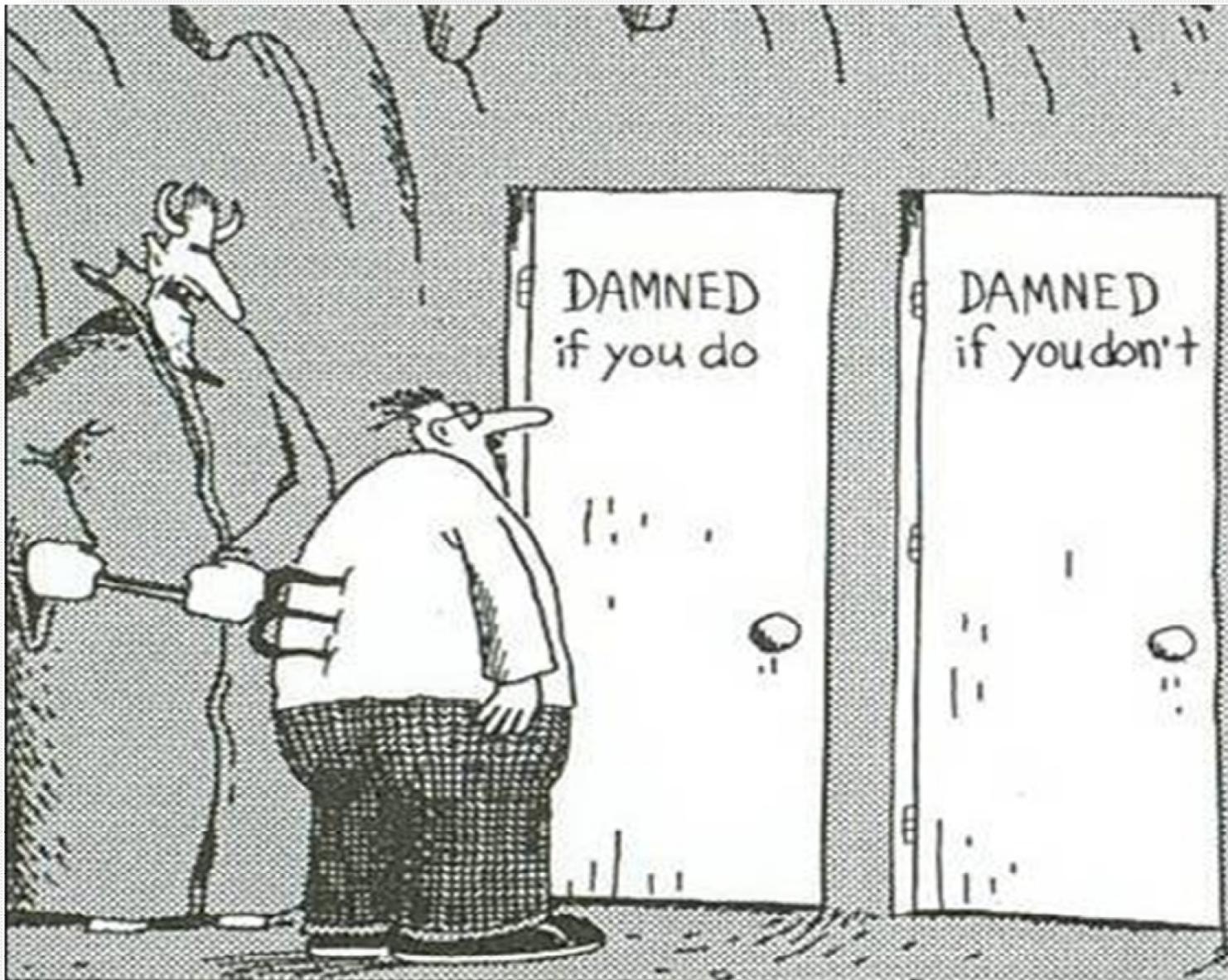


Not taking restoration action may compromise the *natural* quality of wilderness

Wild ~~Versus~~ Natural



Wild And Natural



# Why does this matter?

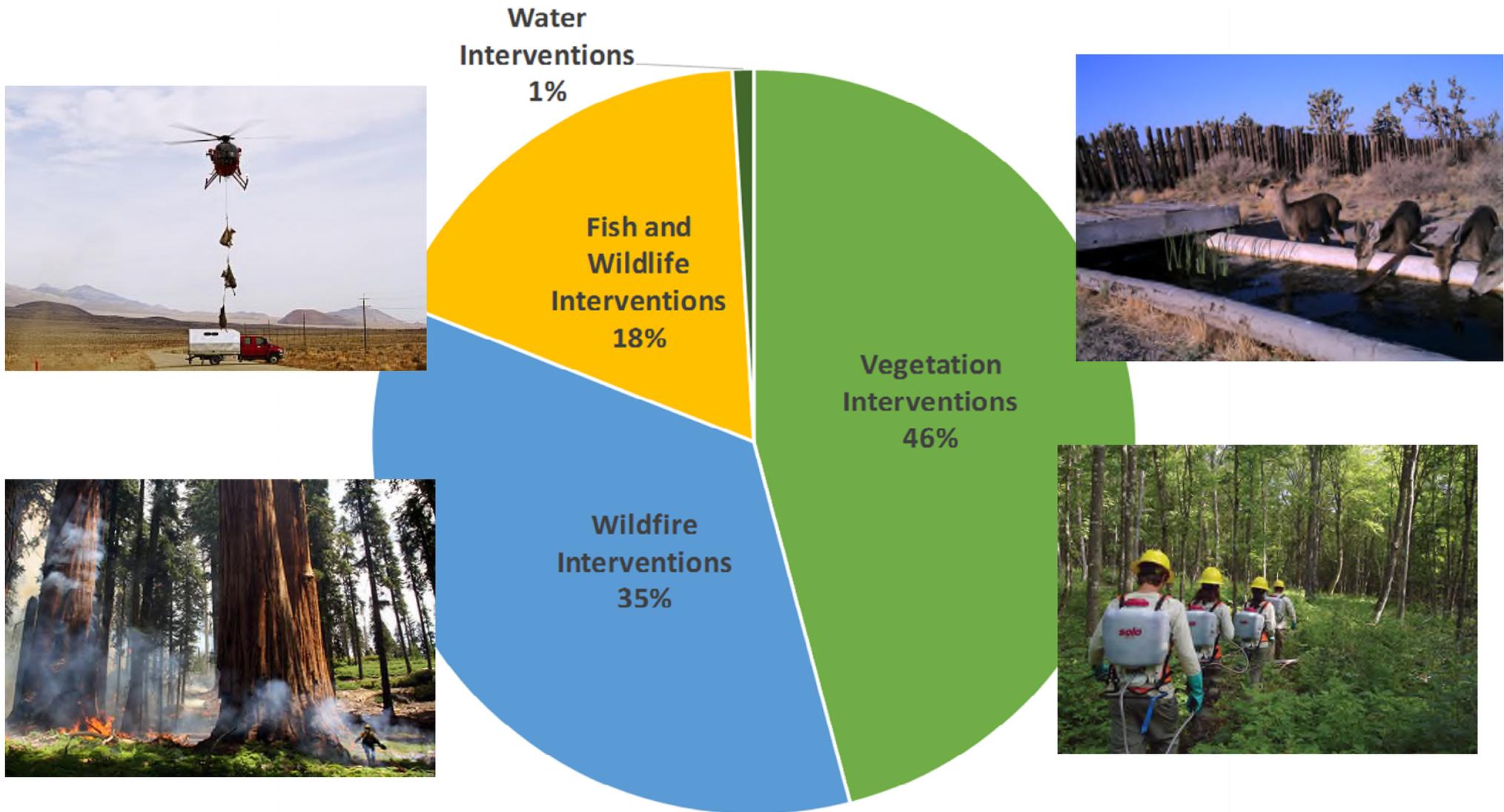
- Death by a thousand cuts? No Data!
- Cumulative effects to wilderness character
  - Commercial, visitor, administrative, science
- Uncertainties, Risks, Unintended Consequences
- Divergent values
- Potential litigation

# How many NWPS units implemented ecological intervention projects in the last five years (2011-2015)?

First national scale, statistically rigorous survey of ecological interventions in designated wilderness by Lucy Lieberman, 2017 MS Thesis, University of Montana

- 210 wilderness units responded across all 4 agencies
- 77 (37%) wilderness units intervened

# Types of ecological interventions

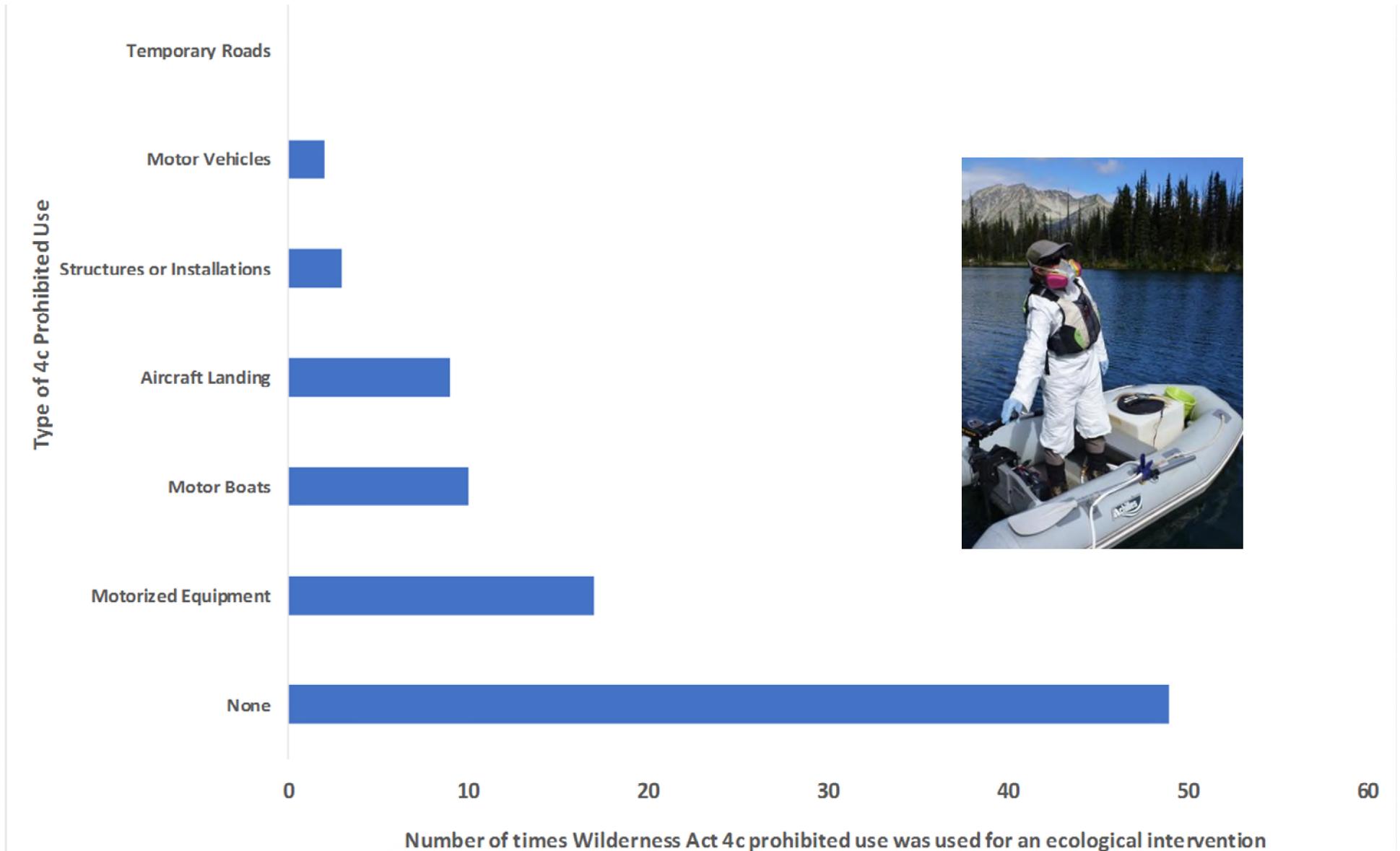


## Public Involvement:

- 37% EA or EIS, 19% unsure, 44% CE or no NEPA

# Wilderness Act 4c Prohibited Uses

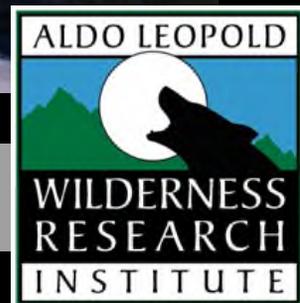
*(n=90 wilderness unit responses; respondents could check multiple 4c uses per project)*



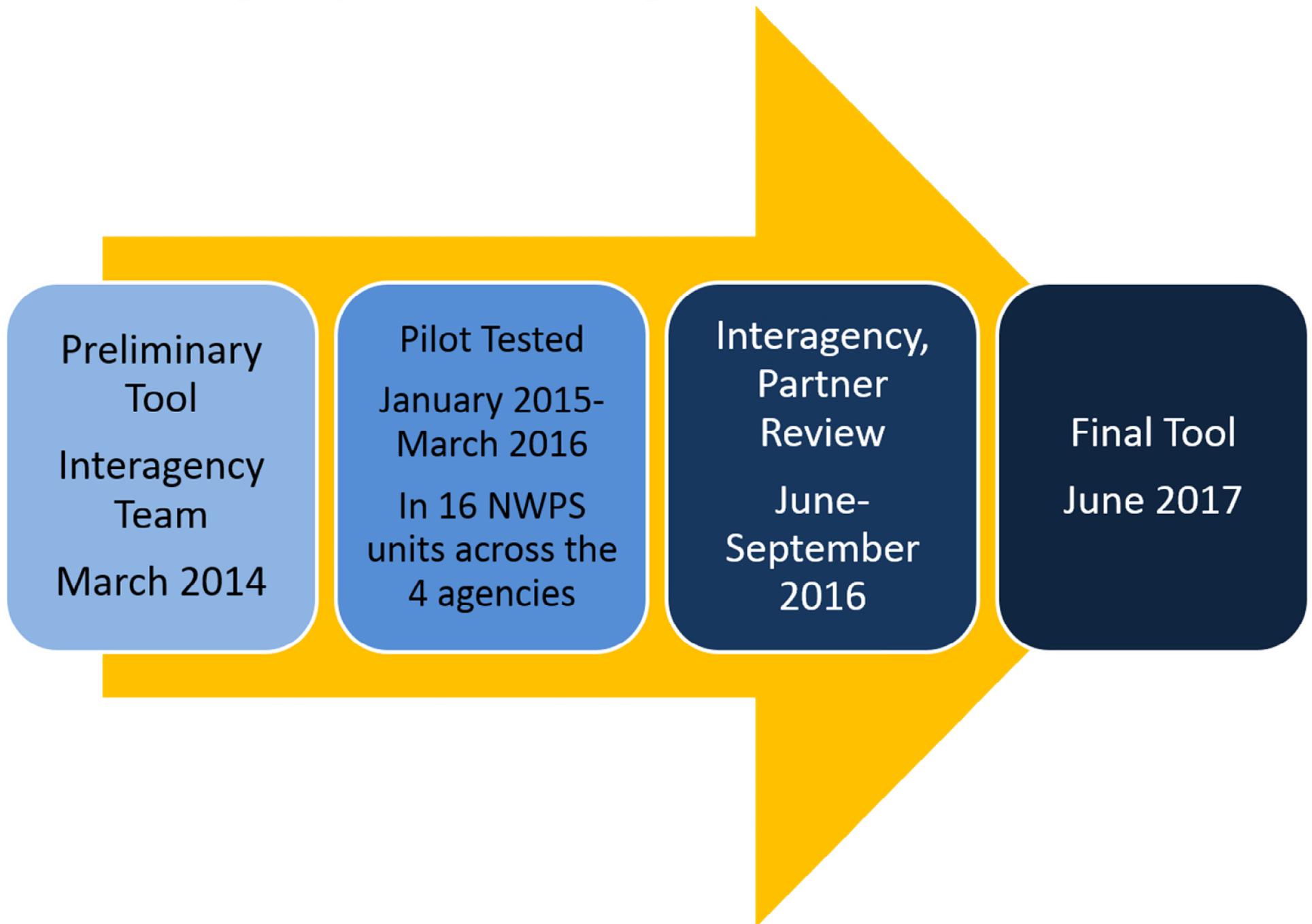
# Evaluating Proposals for Ecological Intervention in Wilderness



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# Supplement to Minimum Requirements Analysis/Decision Guide: Evaluating Proposals for Ecological Intervention in Wilderness



# Approach

Structured Decision-Making, an organized approach to identifying and evaluating options and making choices for complex decisions

## Basic Premises

- Be wary of action bias: first decide if action is necessary, then decide the minimum tool to accomplish the action
- Be wary of oversimplification: decisions need to consider whether benefits outweigh impacts
- Be wary of one size fits all: every situation is different (e.g., place, values at risk, threats, attitudes, knowledge)

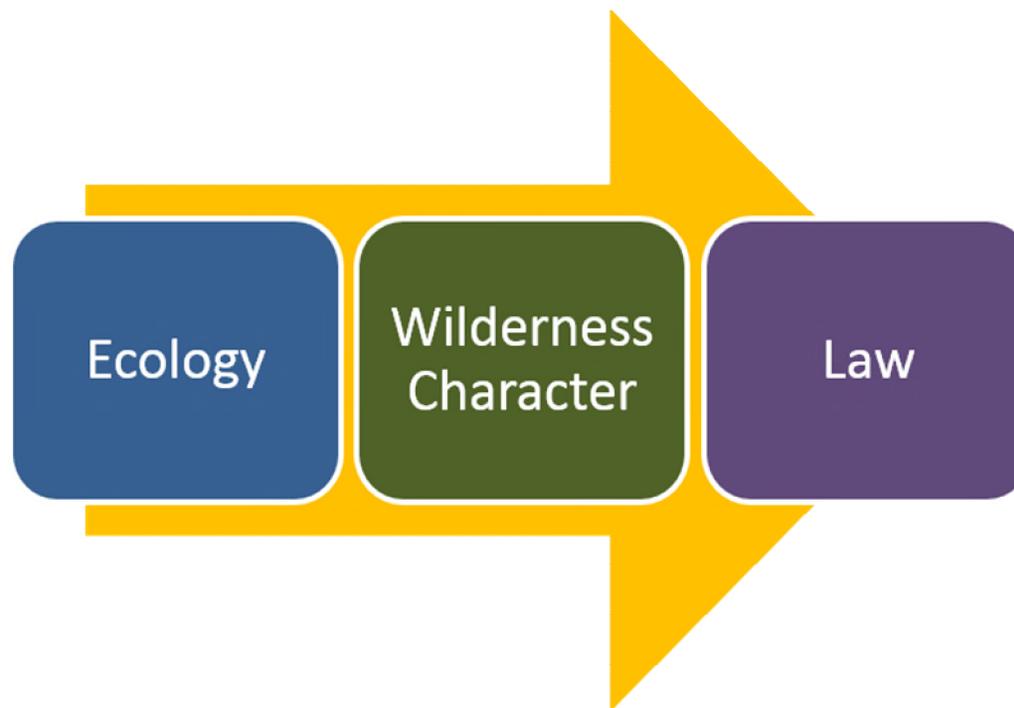
# Goals

- *Comprehensive and Systematic* – structured approach to evaluate criteria involving law/policy, science, ethics
- *Broadly Applicable* – relevant to all NWPS agencies and units
- *Locally Flexible* – reflects local values regarding wilderness and restoration
- *Transparent* – improve communication both inside an agency (across resource disciplines) and outside the agencies

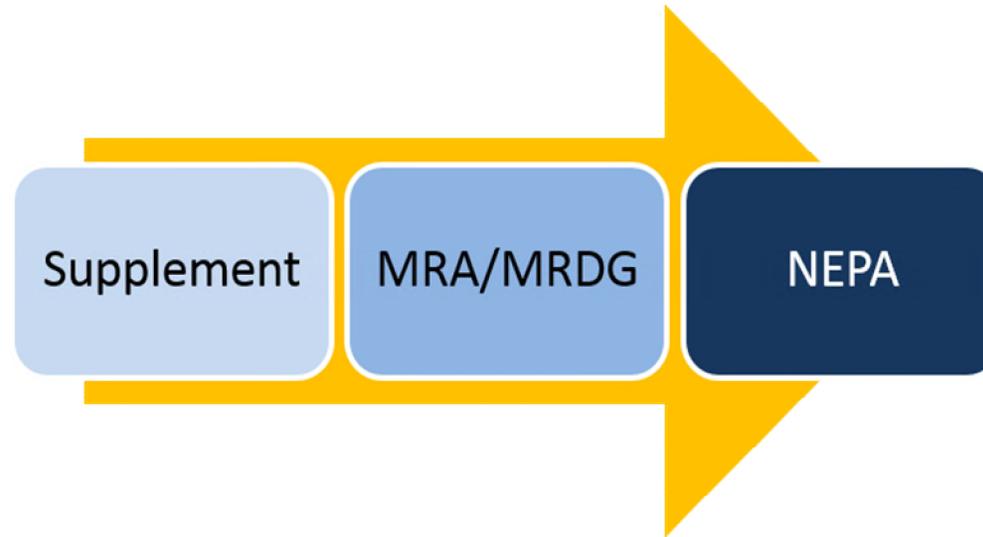


## Practical Application

- Supplement not biased for or against interventions
- Voluntary tool: decision maker not constrained by supplement because additional issues and concerns influence project decisions
- Use of supplement does not guarantee consistent intervention decisions across the NWPS



# Supplement to Minimum Requirements Analysis/Decision Guide: Evaluating Proposals for Ecological Intervention in Wilderness



## Relationship to the Minimum Requirements Analysis?

- Supplement is intended to provide detailed support to early proposal planning and development

## Relationship to NEPA?

- Supplement is designed for use during the pre-NEPA, pre-decisional stage of proposal development
- But, analysis for supplement can contribute to NEPA
- And, supplement can be used to strengthen proposals already in NEPA process

**Importance of interdisciplinary engagement**

## **Scope**

- Applies to congressionally designated wilderness and other areas that by agency policy are managed to preserve their wilderness character
- For interventions that: occur over a large area, have an effect over a long time, or require intensive actions
- Not a substitute for a lack of agency policy on ecological interventions in wilderness

## **Audience**

- Proponents of ecological intervention in wilderness
- Agency staff who are charged with reviewing and evaluating this proposal
- Partner community

## **Supplement to Minimum Requirements Analysis/Decision Guide: Evaluating Proposals for Ecological Intervention in Wilderness**

**Table A:** What is the ecological degradation and what is the proposed ecological intervention?

**Table B:** How does the proposed intervention affect wilderness character?

**Table C:** Are there legal and administrative considerations that apply to the proposed intervention?

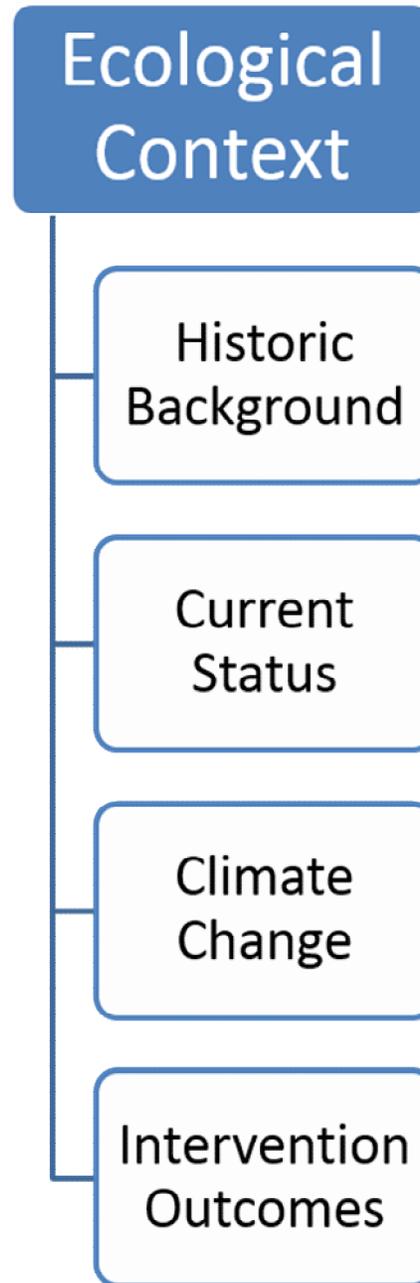


**Step 4:** Determine Minimum Activity MRA Step 2

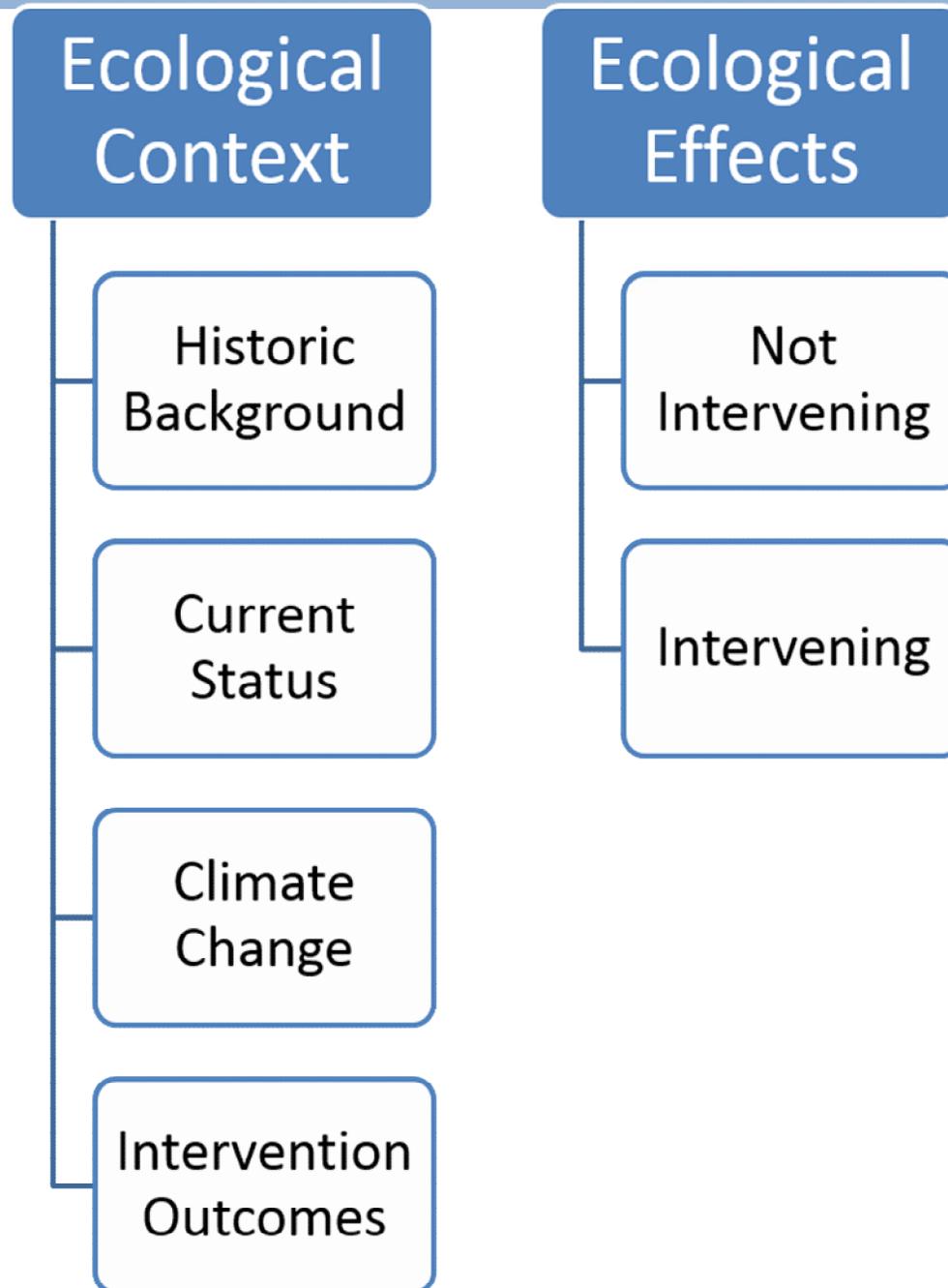
**Step 5:** Complete NEPA, Identify Proposed Action

**Step 6:** Implement, Monitor and Adapt

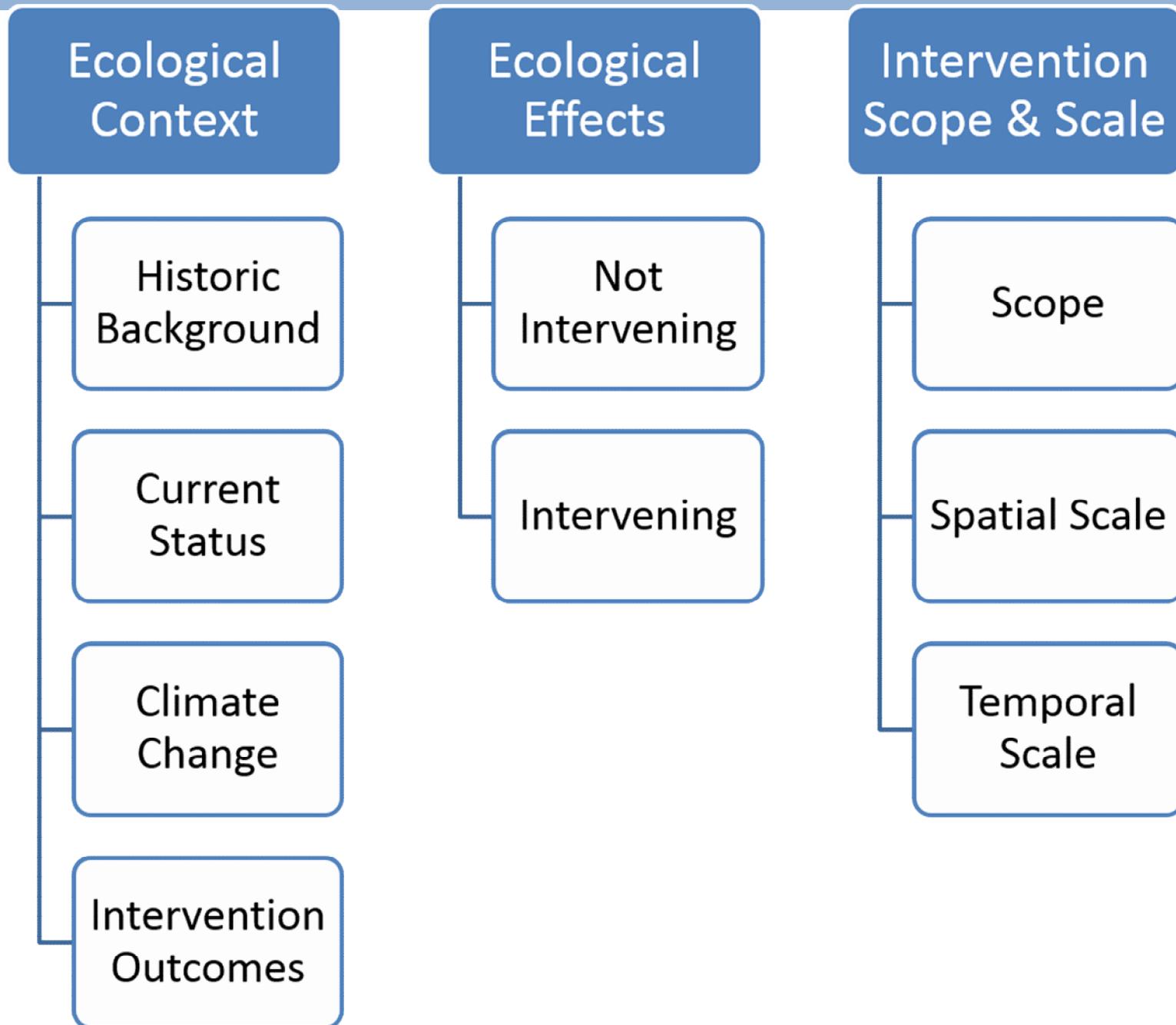
# Table A. What is the ecological degradation and what is the proposed ecological intervention?



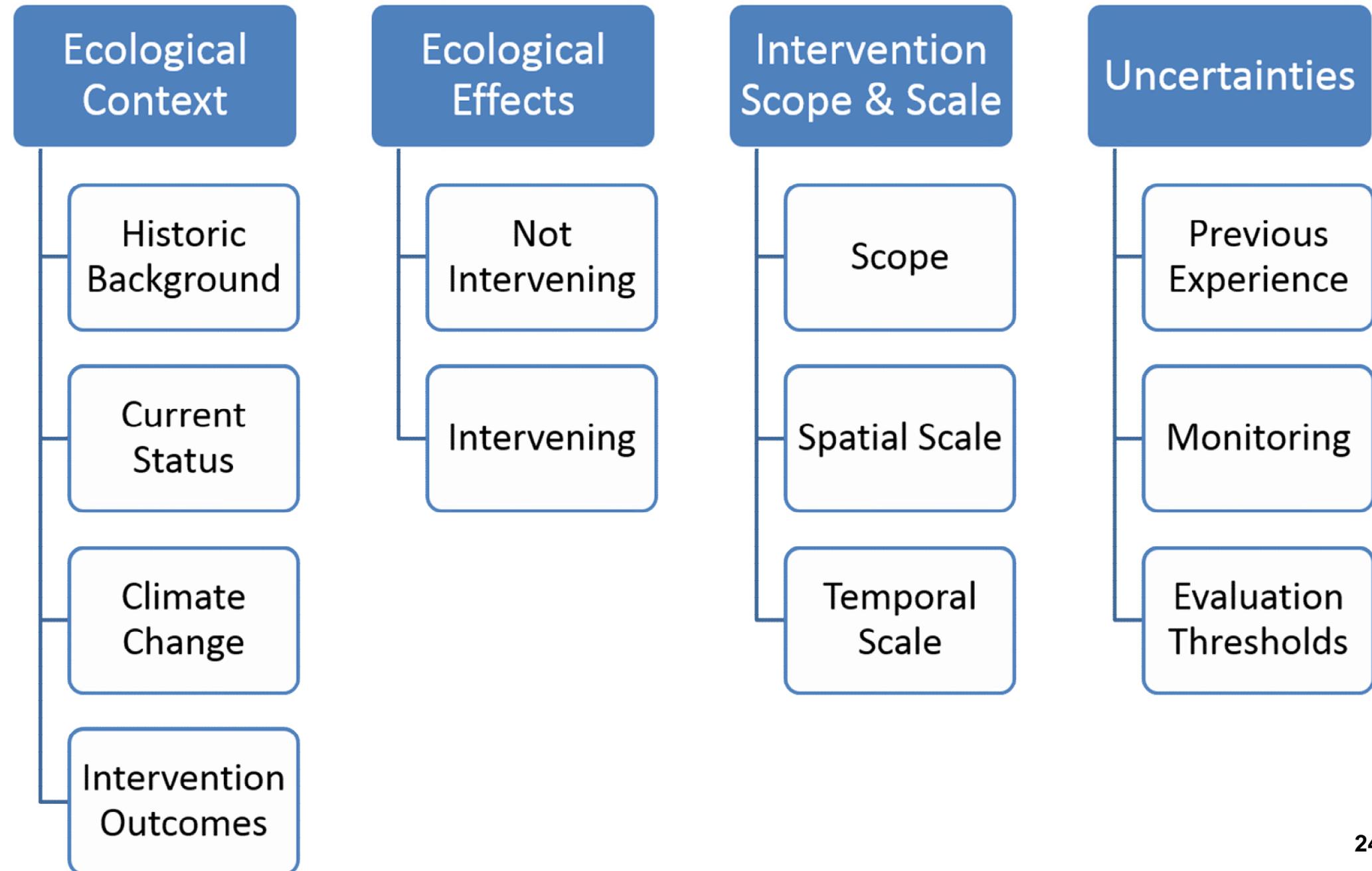
# Table A. What is the ecological degradation and what is the proposed ecological intervention?



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# Table A. What is the ecological degradation and what is the proposed ecological intervention?



# Table A. What is the ecological degradation and what is the proposed ecological intervention?

## 1. Does the proposal describe the background and context for the ecological degradation and the proposed intervention, and the strength and certainty of this understanding? Consider:

### a. Historic Background:

- What is the historic background and context (e.g., past human actions and or legacy land use impacts) for the ecological degradation?
- Is the ecological degradation within the range of historic variation for this system and this wilderness?
- What is the historic distribution and rate of spread of the degradation and the resulting ecological threats and risks?

Ecological  
Context

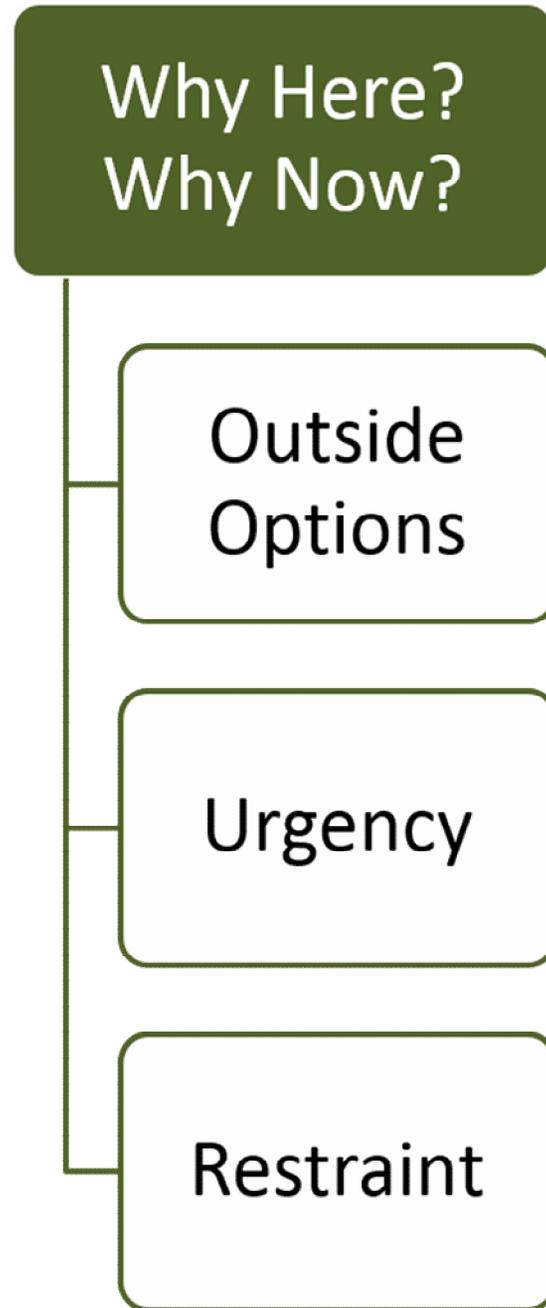
Historic  
Background

Current  
Status

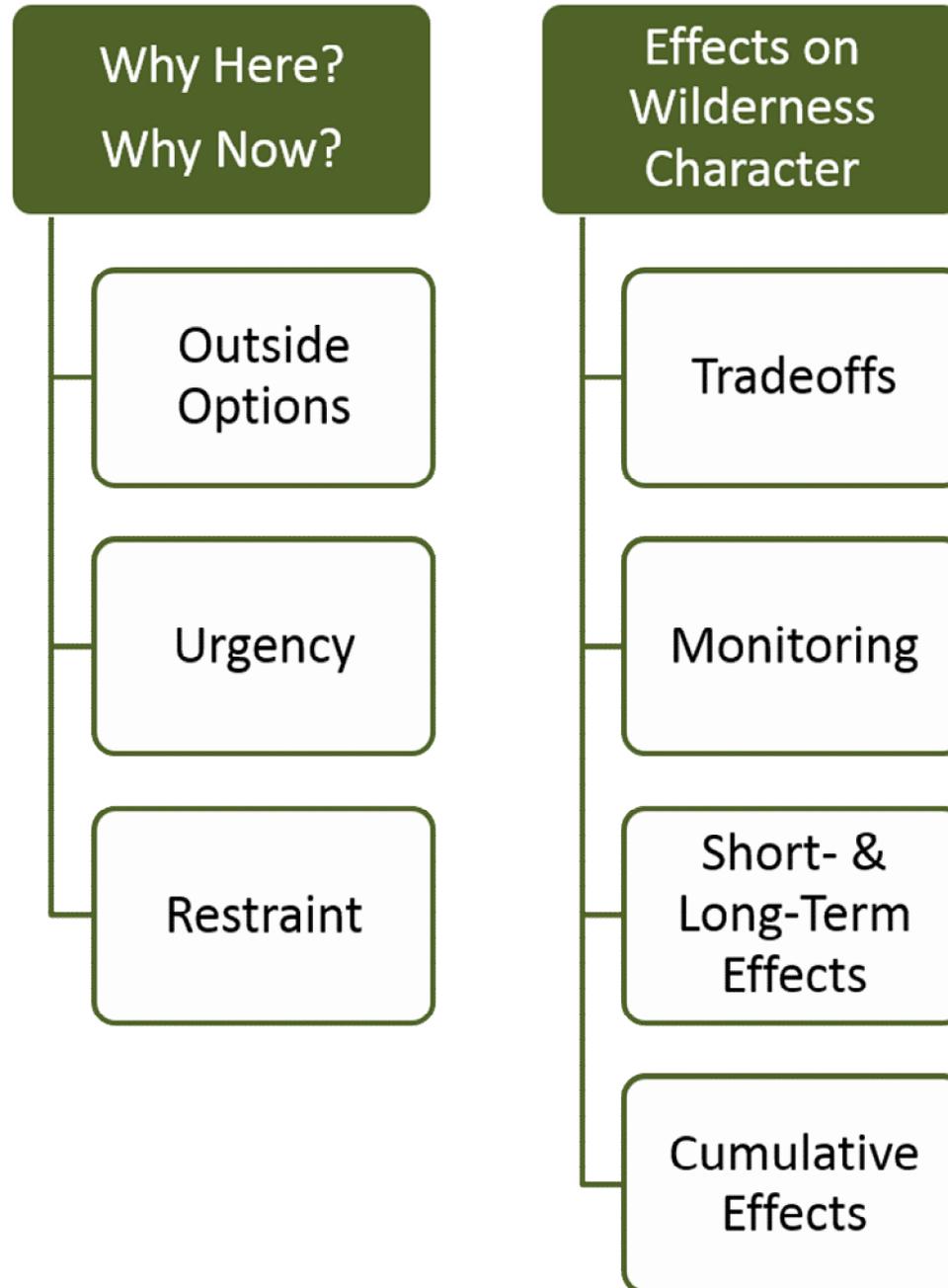
Climate  
Change

Intervention  
Outcomes

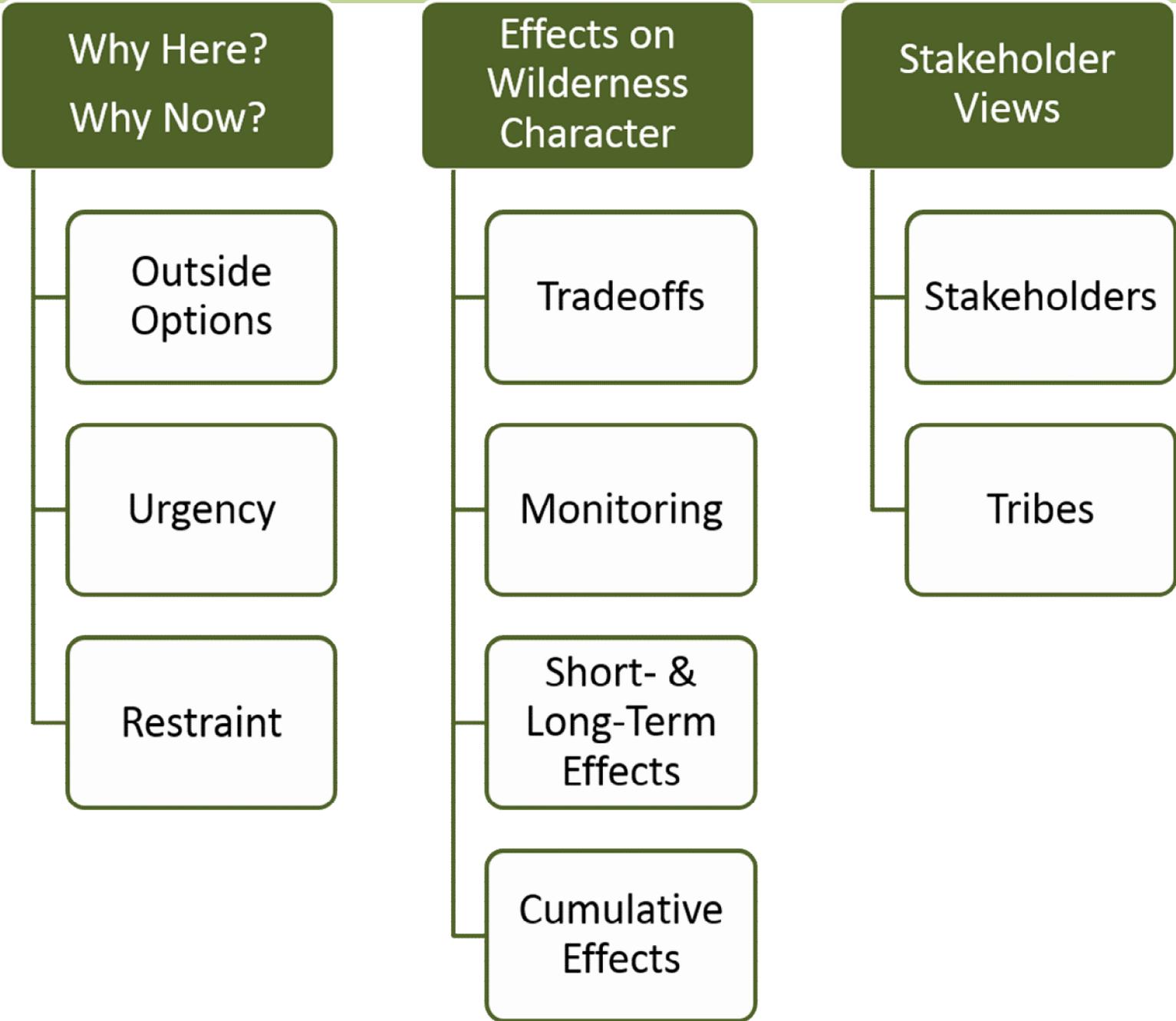
# Table B. How does the proposed intervention affect wilderness character?



# Table B. How does the proposed intervention affect wilderness character?



# Table B. How does the proposed intervention affect wilderness character?



# Table B. How does the proposed intervention affect wilderness character?

## 1. Does the proposal describe why the intervention needs to occur in this wilderness and now? Consider:

### a. Outside Options:

- Does the intervention need to occur inside this wilderness, or are surrounding non-wilderness lands and waters suitable for the intervention (e.g., other types of federal protected areas, state/local public lands, or private lands)?
- If the intervention takes place outside the wilderness, is it expected or likely that there will be an effect inside the wilderness?
- Is the proposed intervention experimental or a well-established practice that has been conducted previously inside wilderness?

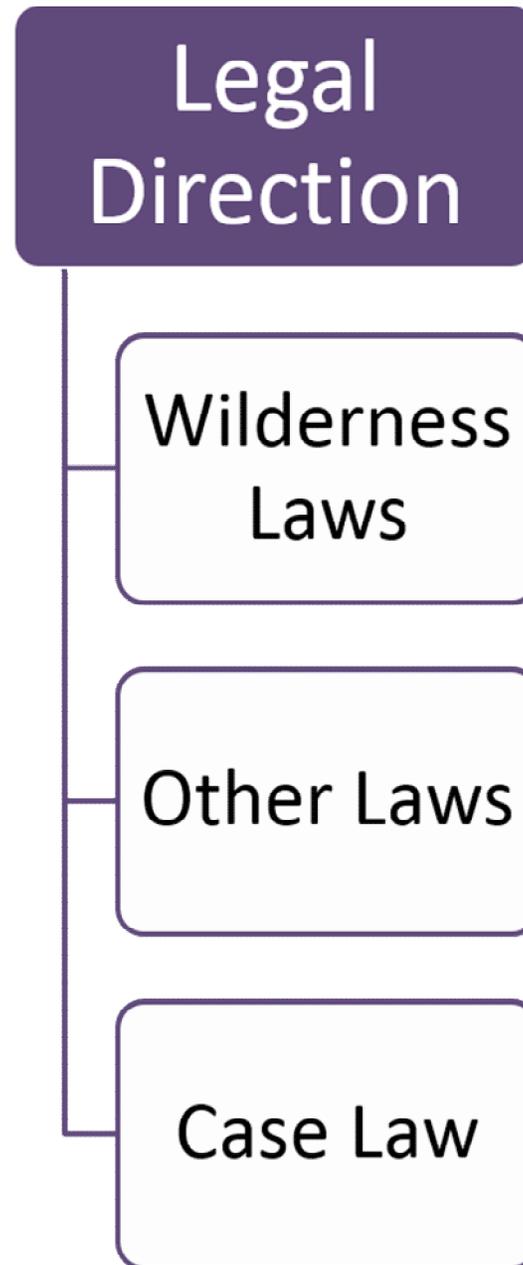
Why Here?  
Why Now?

Outside  
Options

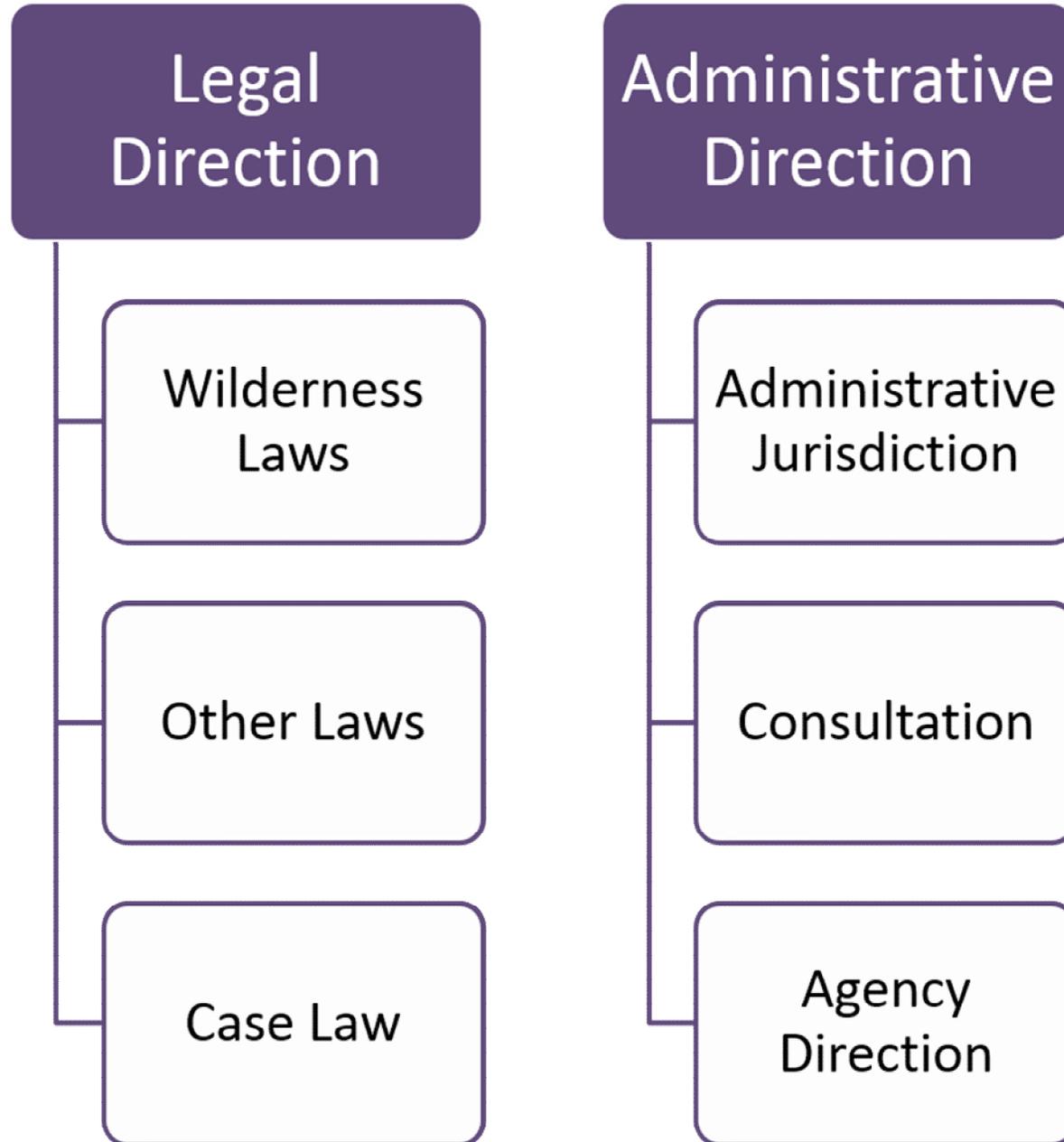
Urgency

Restraint

# Table C. Are there legal and administrative considerations that apply to the proposed intervention?



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# Table C. Are there legal and administrative considerations that apply to the proposed intervention?

## 1. Does the proposal describe relevant legal direction that applies to the proposed intervention? Consider:

### a. Wilderness Laws:

- Is the intervention required to satisfy valid existing rights or a special provision in wilderness legislation (the Wilderness Act of 1964 or subsequent wilderness laws)? If so, cite the law(s) and section(s).

Legal  
Direction

Wilderness  
Laws

Other Laws

Case Law

# Thank you



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