Visitor Use Management: Integrating Research Findings into Agency and Community Decisions

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What are the primary frameworks and strategies used for visitor use management decision-making and how did they develop?

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“We are in the forever business.”

Jeff Bradybaugh
Superintendent, Zion National Park

“… preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of **this and future generations.**” (NPS)

“…to sustain the health, diversity, and productivity of the nation’s forests and grasslands to meet the needs of **present and future generations.**” (USFS)

“to sustain the health, diversity, and productivity of public lands for the use and enjoyment of **present and future generations**.” (BLM)

“…enhance the quality of life of Utahns and visitors by preserving and providing natural, cultural, and recreational resources for the enjoyment, education, and inspiration of **this and future generations.**” (Utah State Parks)

Goal of Recreation Management: Match desired experiences to appropriate settings while maintaining appropriate conditions

Recreation Opportunity Spectrum (ROS)

- Developed by the USFS in the 1970s
- Planning framework intended to define settings used for outdoor recreation based on manageable attributes
- Recognizes diversity in outdoor recreation

  "We believe that, by describing the factors that influence or define the range of possible settings and by communicating this information to recreationists, they will be able to choose the experiences they desire." (Clark & Stankey 1979, p.1)

- Setting Attributes:
  - Access
  - Other nonrecreational resource uses
  - Onsite management
  - Social interaction
  - Acceptability of visitor impacts
  - Acceptable level of regimentation
- Opportunity Settings: "the combination of physical, biological, social, and managerial conditions that give value to a place" (p. 1)
  - Six opportunity settings ranging from **Primitive** to **Urban**
- Managers develop and maintain recreation opportunities, recreationists use them

Recreation Carrying Capacity

The amount and type of use in an area that is consistent with desired resource, social, and managerial conditions (Manning 2011)

Recognized as important element of recreation planning in the 1960s (Wagar, 1964)

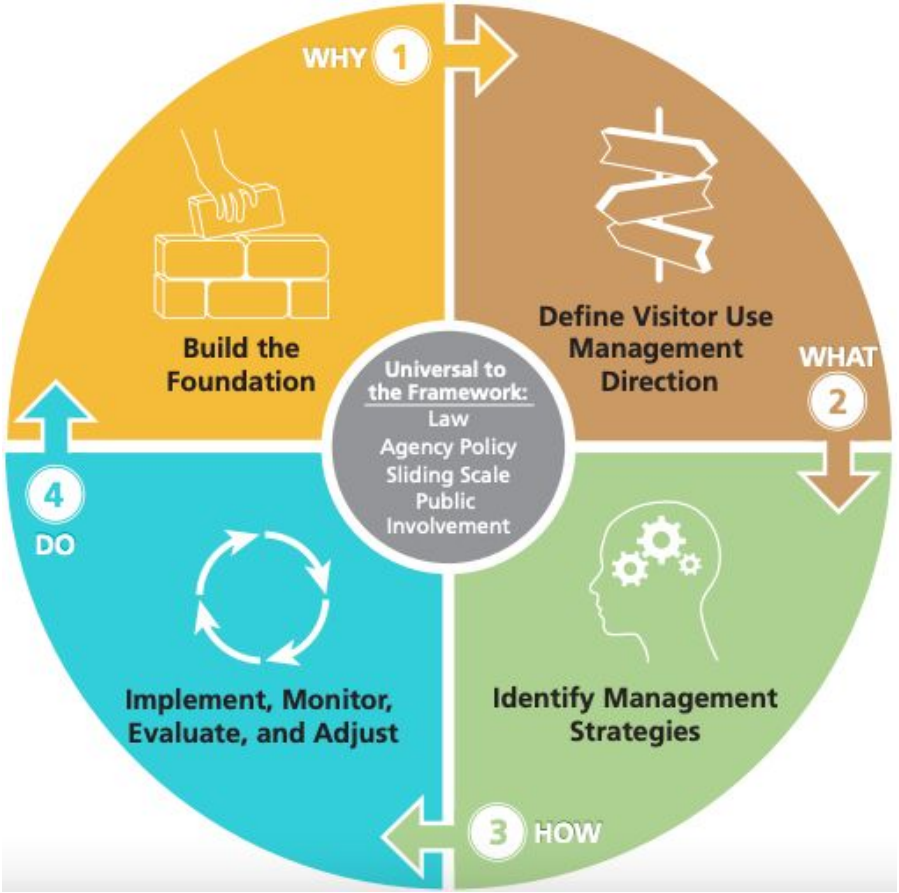
Carrying Capacity-based Frameworks:

- Limits of Acceptable Change (LAC) (USFS, 1980s)
- Visitor Impact Management (1990)
- Visitor Experience and Resource Protection (VERP) (NPS, 1990s)
- Visitor Use Management (VUM) (Interagency Collaboration, 2010s)

VUM Framework

- Collaborative effort among federal agencies that manage outdoor recreation (National Park Service, Bureau of Land Management, U.S. Forest Service, U.S. Fish and Wildlife Service, Army Corps of Engineers, National Oceanic and Atmospheric Administration)
- Visitor Use Management: “the proactive and adaptive process for managing characteristics of visitor use and the natural and managerial setting using a variety of strategies and tools to achieve and maintain desired resource conditions and visitor experiences” (IVUMC 2021)
- Four-stage, 14-step process
- Includes “sliding scale” to determine needed investments based on the project’s complexity and the consequences of the decision

VUM Framework Overview



VUM Framework

Sliding Scale of Analysis

Source: IVUMC 2016

Elements and Steps of the VUM Framework

1 WHY — Build the Foundation

Steps:

1. Clarify project purpose and need.
2. Review the area's purpose and applicable legislation, agency policies, and other management direction.
3. Assess and summarize existing information and current conditions.
4. Develop a project action plan.

Outcome: Understand why the project is needed, and develop the project approach.

2 WHAT — Define Visitor Use Management Direction

Steps:

5. Define desired conditions for the project area.
6. Define appropriate visitor activities, facilities, and services.
7. Select indicators and establish thresholds.

Outcome: Describe the conditions to be achieved or maintained and how conditions will be tracked over time.

3 HOW — Identify Management Strategies

Steps:

8. Compare and document the differences between existing and desired conditions, and, for visitor use-related impacts, clarify the specific links to visitor use characteristics.
9. Identify visitor use management strategies and actions to achieve desired conditions.
10. Where necessary, identify visitor capacities and additional strategies to manage use levels within capacities.
11. Develop a monitoring strategy.

Outcome: Identify strategies to manage visitor use to achieve or maintain desired conditions.

4 DO — Implement, Monitor, Evaluate, and Adjust

Steps:

12. Implement management actions.
13. Conduct and document ongoing monitoring, and evaluate the effectiveness of management actions in achieving desired conditions.
14. Adjust management actions if needed to achieve desired conditions, and document rationale.

Outcome: Implement management strategies and actions, and adjust based on monitoring and evaluation.

Source: IVUMC 2016

Management Strategies & Tools

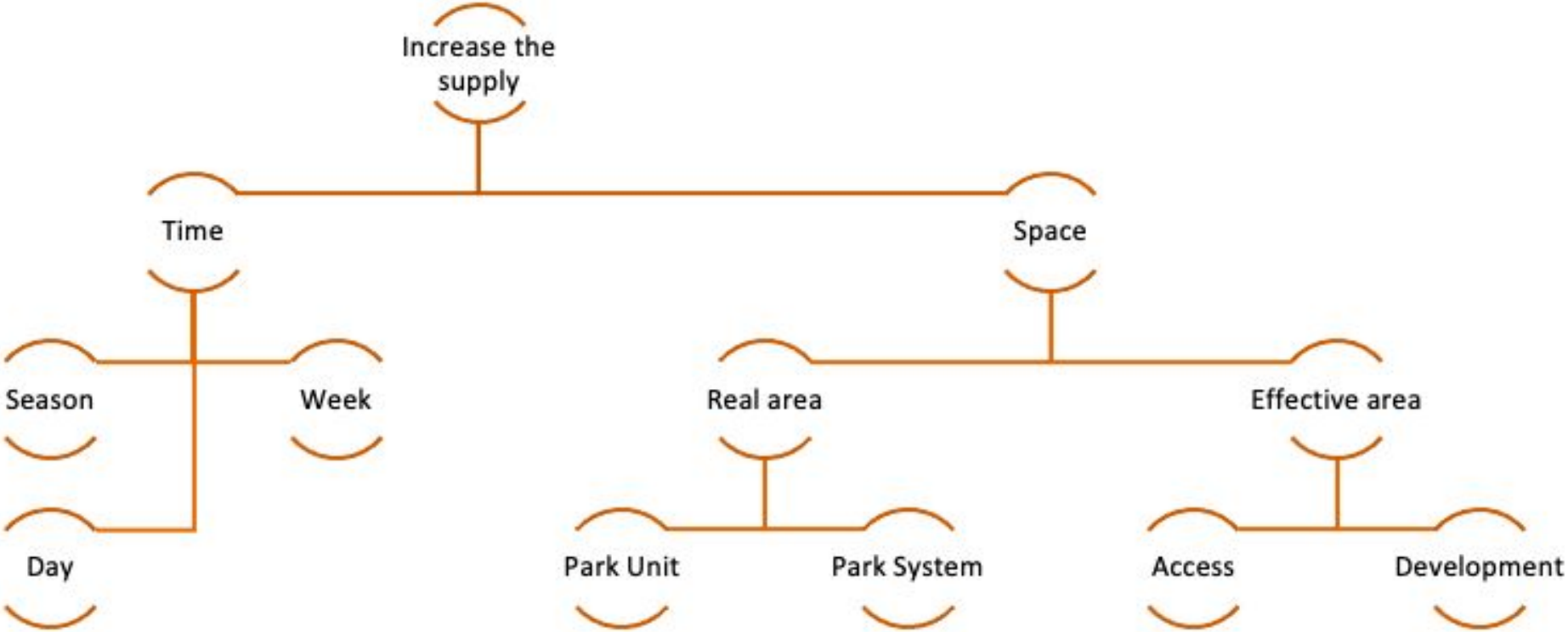
Increase the supply

Reduce impact of use

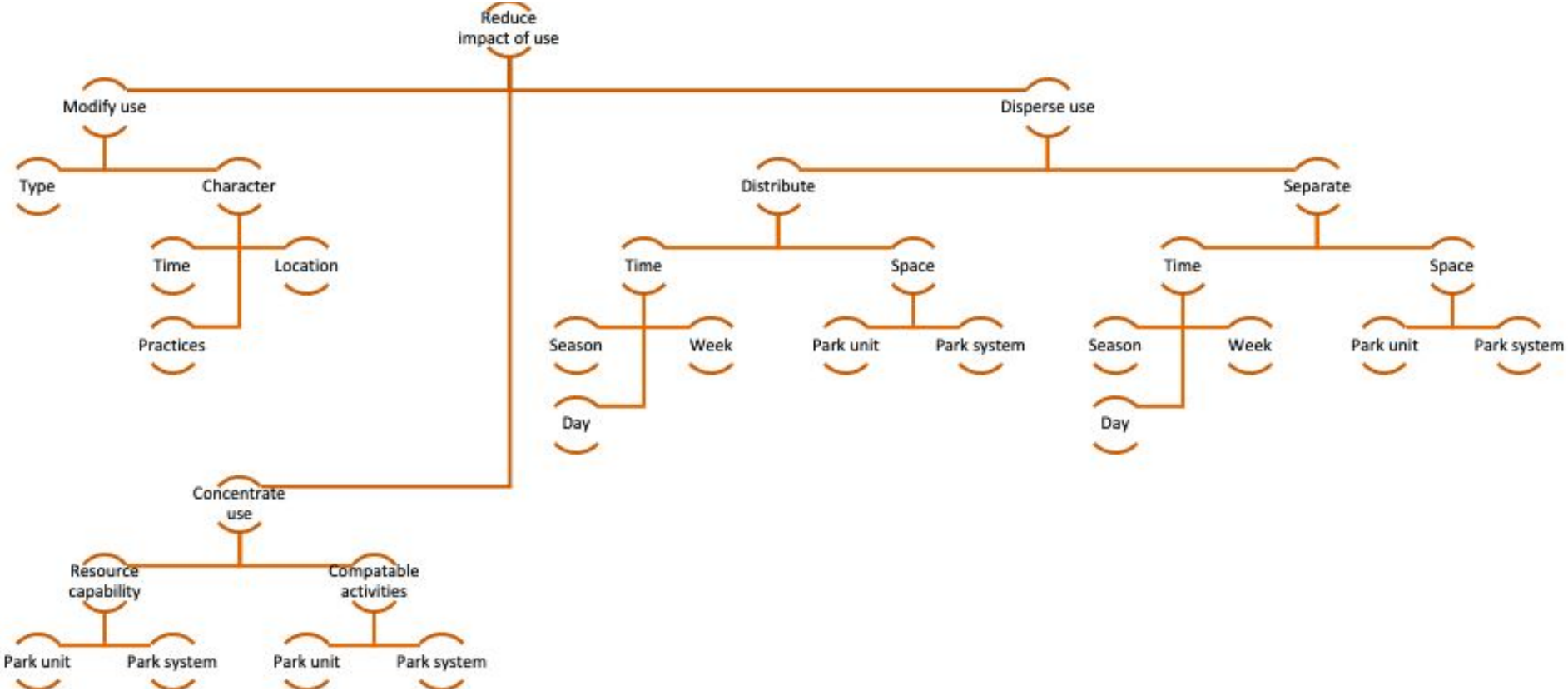
Increase durability of resource

Limit use

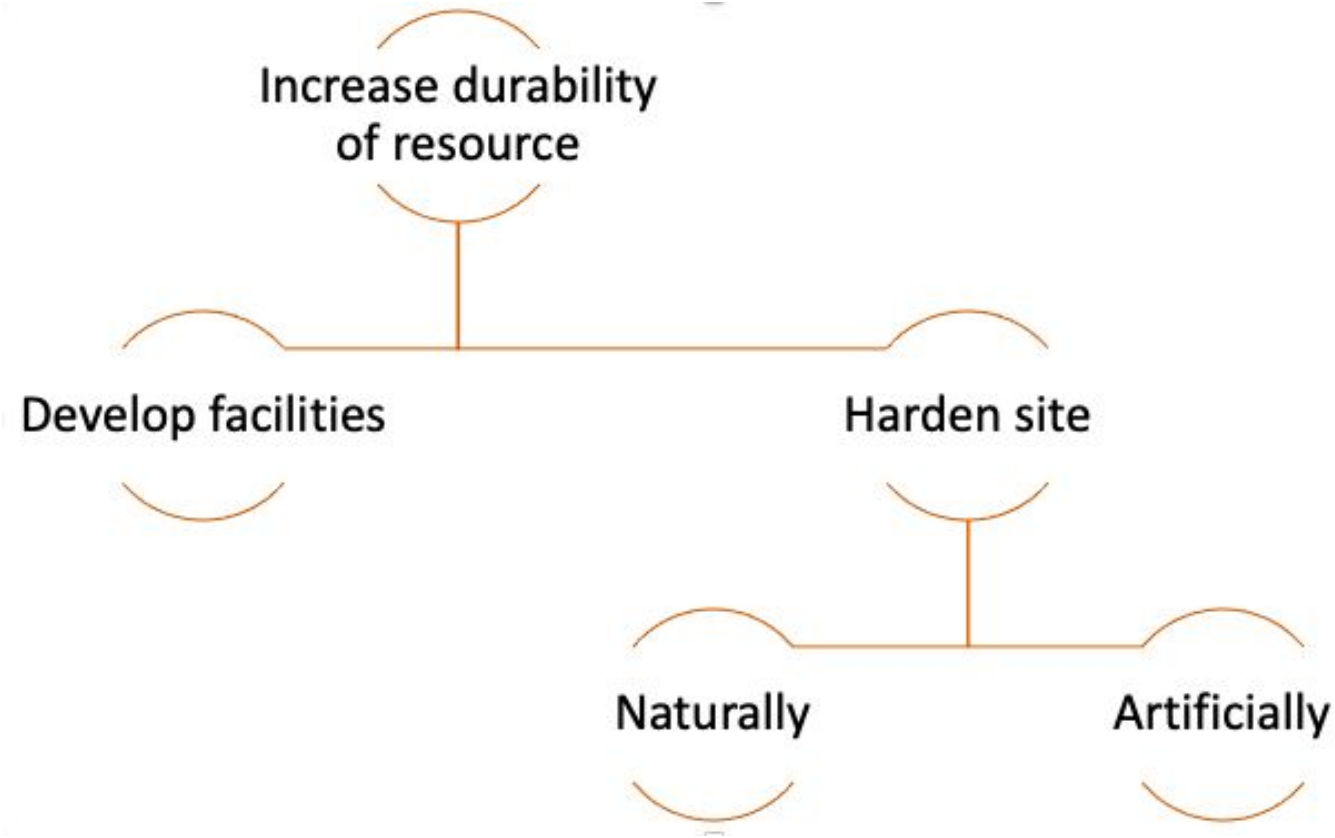
Source: Manning (2011, p. 274)



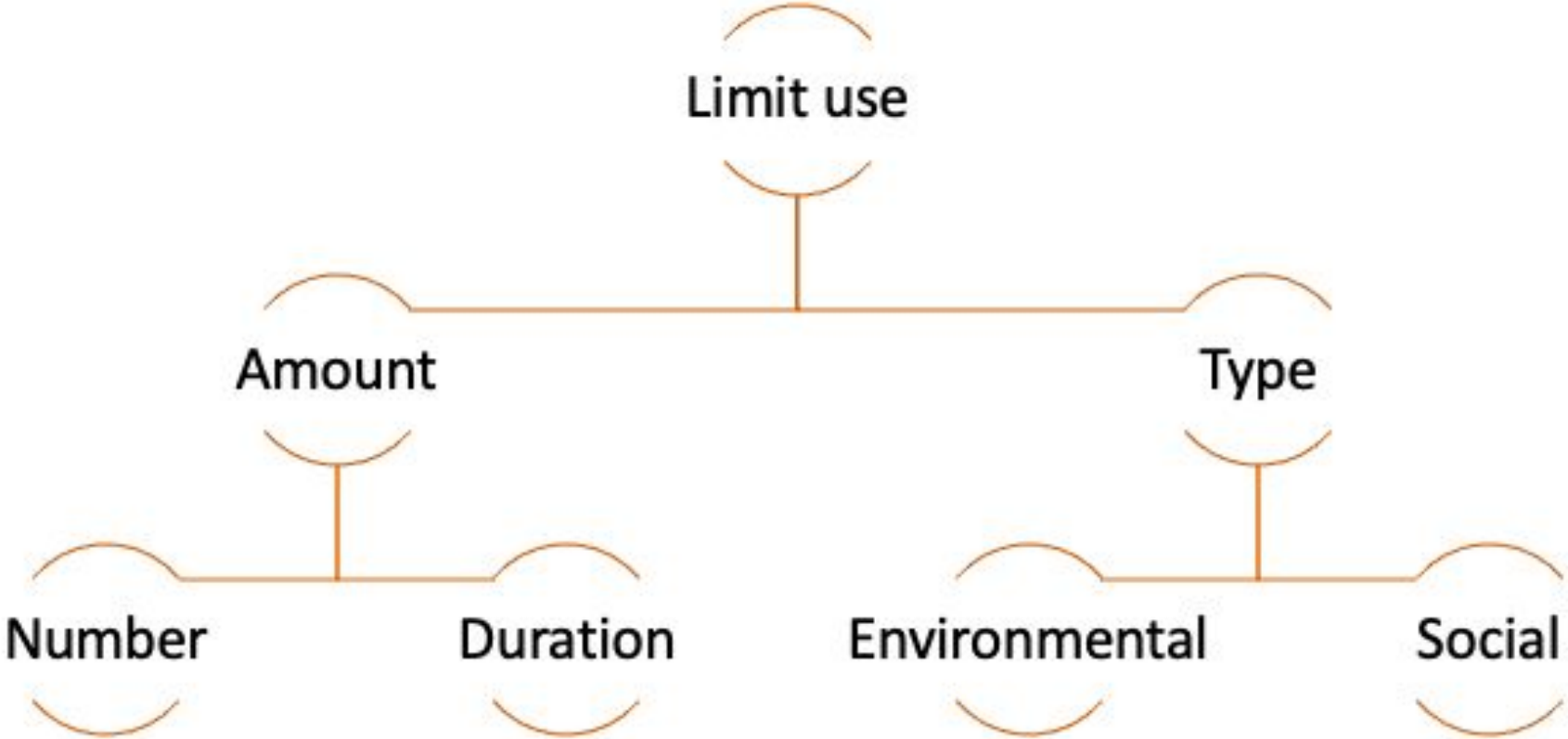
The supply of outdoor recreation can be increased in both time and space. Some use can be shifted to off-peak times to make more efficient use of a recreation area. New areas can be added; and changes in access and development can allow existing areas to accommodate increased recreation use.



The impact of use can be reduced by modifying the type or character of use; distributing use (in time or space); separating uses (temporally or spatially); or concentrating uses according to the capabilities of the resource (i.e. resource carrying capacity) and other compatible activities (i.e. co-locating activities that are unlikely to conflict with each other).



Managers can increase the durability of the recreation resource by developing facilities (like restrooms, campsites, parking lots, etc.) or hardening the site. Sites can be hardened naturally - like locating trails on durable surfaces such as sand, gravel, rock, or tolerant vegetation - or artificially by constructing stairs, paving trails, laying gravel, etc.



The final basic strategy for managing outdoor recreation is limiting use. Managers can limit both the amount and type of use. Amount of use can be limited based on number (e.g. the Wave permits a maximum of 20 people per day) or duration (e.g. dispersed campsites on Forest Service lands can be occupied for a maximum of 16 days). Limits on the type of use generally relate to the environmental and social characteristics of an area.

Managing recreation and visitor use

There are four basic strategies for managing recreation and visitor use.

Each strategy includes several substrategies and numerous tools

Different strategies and tools are appropriate for different **contexts**

Who determines what is *acceptable*?

From the VUM Framework Guidebook:

[use framework in combination] “with the appropriate procedural components (e.g., public involvement and environmental and cultural resource analysis) for the particular project being conducted…”

“…managers collaboratively develop long-term strategies for providing access, connecting visitors to key visitor experiences, protecting resources, and managing visitor use…”

“…decisions made within the framework are professional judgments informed by the best available science, staff expertise, and public input…” (IVUMC 2016, p. 2)

"[M]anagers must ultimately make value-based judgments about the maximum acceptable level of visitor-caused impacts to the resource base and the quality of the visitor experience. However, such judgments should be as informed as possible by scientific data on the relationships between visitor use and resulting impacts and the degree to which park and wilderness visitors and other interest groups judge such impacts to be acceptable."

(Manning & Lawson, 2002, p. 157)

References and Additional Resources

Photo by Kelly Goonan

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