



**Monitoring Impacts
and
Managing Recreational Use
on
Forest Preserve Lands**

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You are here



Adirondack Park Agency

- Executive Agency with 11 Board members and a professional staff.
- Private Lands — Adirondack Park Land Use and Development Plan (1973)
- Forest Preserve — Adirondack Park State Land Master Plan (1972)

NYS Policies on Forest Preserve Lands

- NYS Constitution Article XIV
- State Land Master Plan
 - Adirondack Park
 - Catskill Park
- DEC Environmental Conservation Law
- DEC Unit Management Plans

Unifying Theme to the SLMMPs

- **The protection and preservation of the natural resources of the state lands within the Park must be paramount.**
- **Human use and enjoyment of those lands should be permitted and encouraged, so long as the resources in their physical and biological context as well as their social and psychological aspects are not degraded.**

Adirondack Park

Area Type	Percent	Acreage
Private lands	50.4	2,935,138
Forest Preserve	43.8	2,551,699
Water area	5.8	334,584
Total	100	5,821,421

Catskill Park

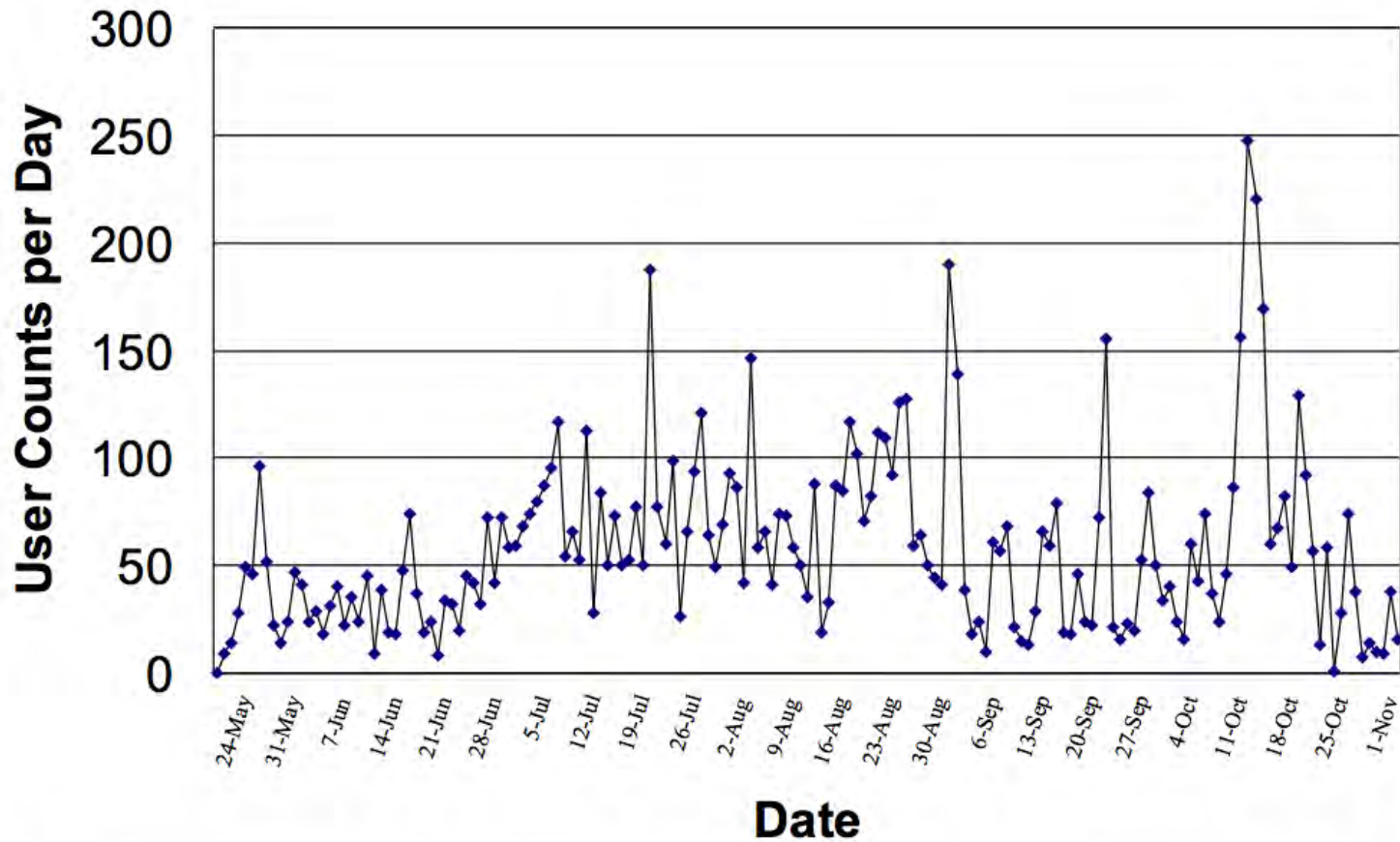
Area Type	Percent	Acreage
Private lands	53	381,070
Forest Preserve	41	287,500
NYC Watershed	6	40,500
Total	100	709,070

UMP Development (APSLMP)

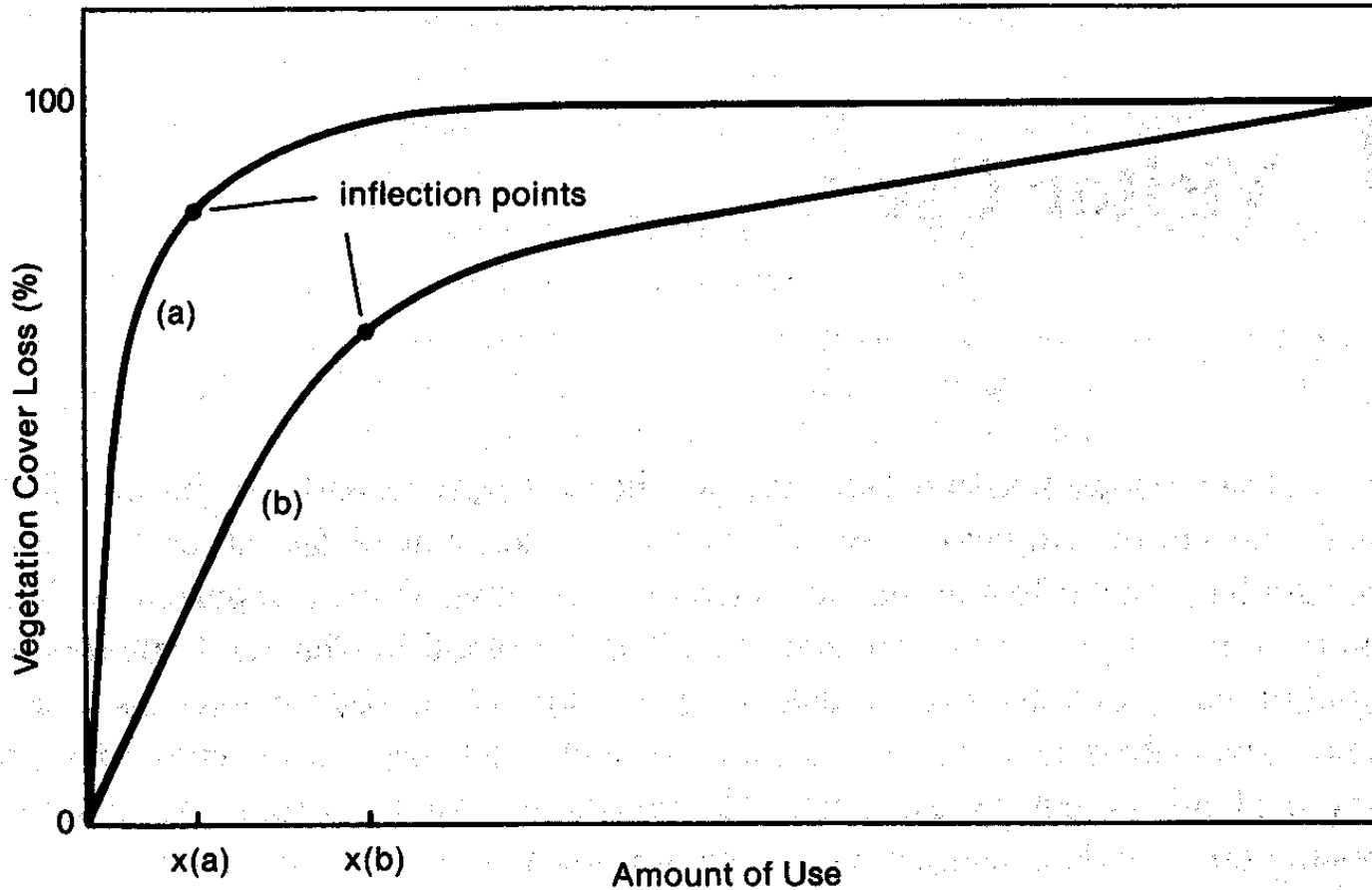


- Inventory actual and projected **use**.
- Assessment of the **impacts** of actual and projected use on resources, ecosystems and public enjoyment.
- Assessment of the physical, biological and social **carrying capacity**.

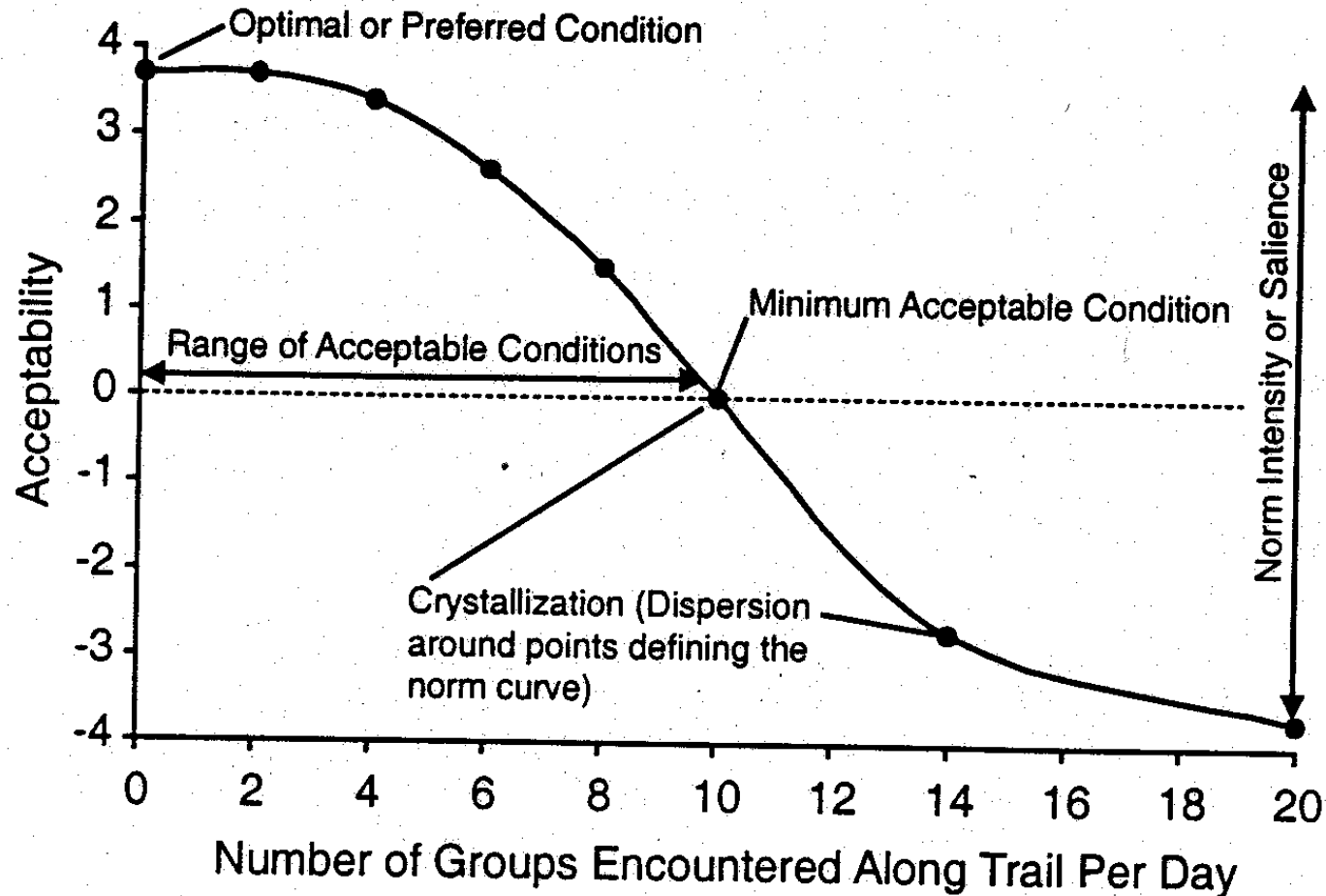
Estimating West Canada Lake Wilderness Use in 2003



Vegetation Loss from Visitor Use



Acceptability of Visitor Encounters



Recreation Carrying Capacity



- Adapted from range management and biological research.
- Research conducted in 1960's and 70's in response to concerns about overuse.
- Based on the concept any use causes change to resource and visitor experience conditions.

Recreation Carrying Capacity Types

- Biological-ecological
- Social-psychological
- Physical



Levels of CC Analysis

1. Professional observation on whether carrying capacity has been exceeded or not based on facts and anecdotes available.



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Levels of CC Analysis

1. Professional observation on whether carrying capacity has been exceeded or not based on facts and anecdotes available.
2. **Inter-disciplinary team develops practical analyses using Adaptive Management approaches.**
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Dilemmas of Applying Carrying Capacity Assessment

- Insufficient data gathered for analysis and model building.
- Interactions of many factors and variables unknown.
- Recreation impacts at various settings and levels of use are not documented.
- Subjective judgments by managers applied to carrying capacity analysis (e.g., weighting importance of various components).

Adaptive Management



- Integration of policy, science, planning, management, enforcement, and monitoring to systematically learn from ongoing organizational processes.
- Incrementally adapt management when dealing with complexity and uncertainty.

Assumptions of Adaptive Management

- Information and knowledge will never be adequate.
- Complex problems can only be answered by experience.
- Information and knowledge does not accumulate, it is often discarded.
- Analyses need to be simplified.
- Uncertainty is more common than certainty.
- Much of what we know is wrong, we just don't know what it is right and what is wrong yet.

(Walters 1986)

Adaptive Management Frameworks to Implement Recreation Carrying Capacity

- Limits of Acceptable Change (LAC)
- Visitor Impact Management (VIM)
- Visitor Activity Management Process (VAMP)
- Visitor Experience and Resource Protection (VERP)
- And multiple other frameworks

Limits of Acceptable Change

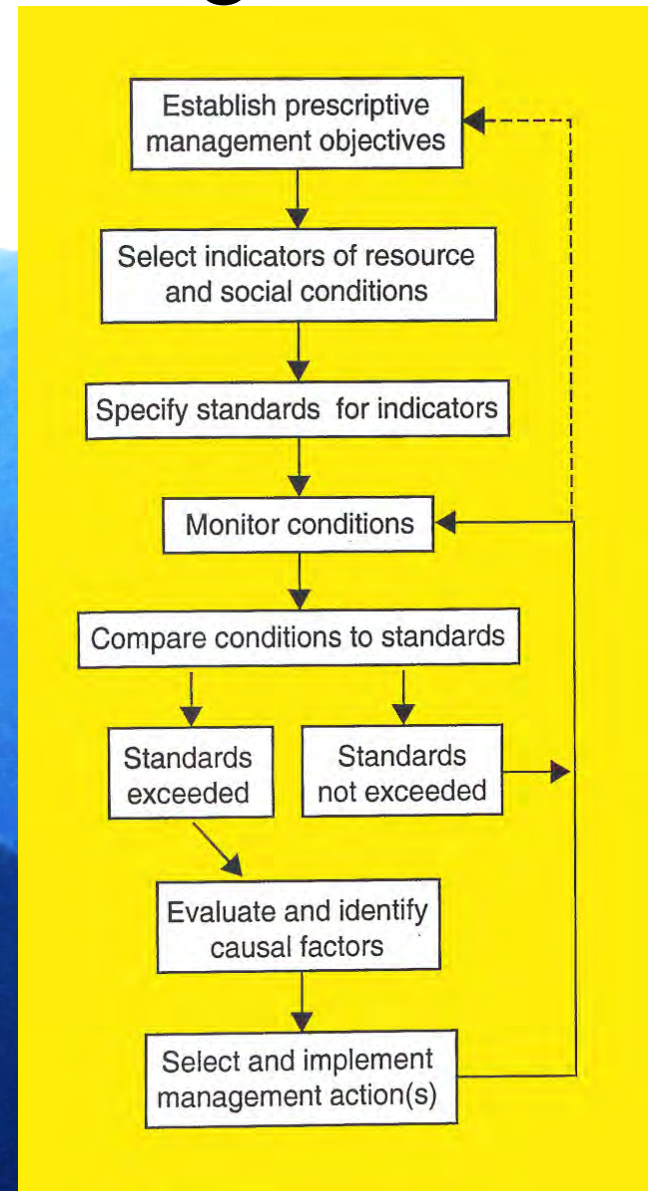
- Developed by the US Forest Service in the 1980's.
- Identifies the **critical components** of the physical, biological and social systems that need to be monitored.
- Identifies the **desired physical, biological and social conditions** that policy and management seeks to provide or maintain.

Limits of Acceptable Change

- Indicators of change are the variables that are monitored to detect changes in the **desired conditions**.
- Standards are the **acceptable level** (numeric values) of the indicator variable that should not be exceeded.

Limits of Acceptable Change

- LAC is a ten step process that is a **closed management system**.
- If the standards of the indicators of change are exceeded, then management action must be taken to restore desired conditions.



Example Indicators: Remote lake surrounded by wilderness designation

- **Biological-Ecological**

- fecal coliform and E. coli counts
- extent of aquatic invasive plant species
- shoreline trampling of vegetation

- **Social – Psychological**

- number of boats-at-one-time
- visitor perception of crowding

- **Physical**

- percent occupancy in designated campsites
- number of user-created or non-designated campsites

Benefits of LAC

- Provides specific steps to determine acceptable conditions and indicators.
- Identifies management techniques necessary to move toward or maintain desired conditions.
- Provides monitoring on both conditions and effectiveness of management.
- Provides a public record of management decision-making.
- Allows for a sliding scale of analysis from site specific to large areas.

Interagency Visitor Use Management Council

Best
management
practices



INTERAGENCY
VISITOR USE MANAGEMENT
COUNCIL

Visitor Use Management Framework

A Guide to Providing Sustainable Outdoor Recreation

Edition One | July 2016



IVUM Publications 2018



Visitor Capacity Guidebook

Managing the Amounts and Types of Visitor Use
to Achieve Desired Conditions

Edition One | June 2018



Monitoring Guidebook

Evaluating the Success of Visitor Use Management

Edition One | September 2018



A landscape photograph of a mountain range. The mountains are layered, with the closest ones in dark blue and the ones further away becoming progressively lighter and more hazy. The sky is a pale, clear blue. The overall mood is serene and vast.

Questions?