

The Right to Risk in Wilderness



The Right to Risk in Wilderness

- Agencies are responsible for managing wilderness providing a diversity of recreation opportunities.
- People vary in their motivations and that public agencies have an obligation to plan and manage for a variety of experiences.
- Interpretations of the Wilderness Act of 1964 have added that wilderness is a place where users are responsible for their own safety, where a physical and mental challenge to survive exists, and where self-reliance reign. Opportunities for a person to fulfill needs for adventure, challenge, and risk.

Issue

- Clash between increasing governmental regulations and search and rescue procedures prevented wilderness recreationists from exercising personal freedom and self-reliance which is currently manifested in current wilderness planning and management.
- The land, not a managing agency, provides the opportunities for risk and that "agency rescues are a after the fact decisions" which have no impact on the risk taken by wilderness users.

Problems

- Increasing Agency Control.
- The realization that rescue is available also has led to a **degradation of the resource itself**.
 - We can climb quickly, descend quickly, and radio for help if we run into problems.
- Infringement on the Right to Risk in Wilderness.

Solution

- Establishment of a "No-Rescue" Policy or "No Rescue Zones" in Wilderness.
- Recreationist would retain total responsibility for their own safety—that is, would assume the full risk of participation.
- The agency would be responsible for providing basic information describing the area, informing users of the principal risks in the proposed outing, and informing them further that under no circumstances would outside assistance be available to anyone while in the area.

Implications

- Critics of the proposed no-rescue policy may point out certain legal and humanitarian concerns that would make its adoption "politically impossible."
- An individual who voluntarily engages in an activity with an appreciation of its inherent risks waives any legal right to recovery for losses.
- Furthermore, the legal concepts of contributory negligence and assumption of risk have generally proven to be valid defenses.



United States
Department of
Agriculture

Forest Service

Pacific Southwest
Region

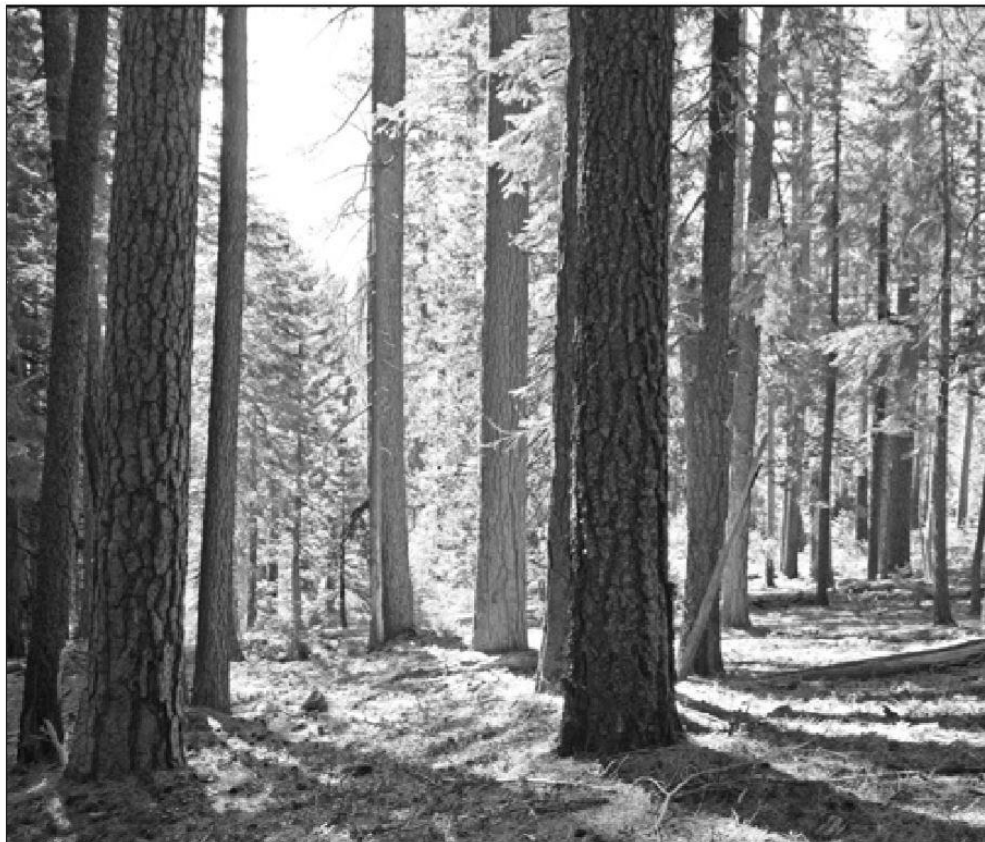
R5-MB-262

August 2013



Sierra Nevada Forest Plan Amendment

Final Supplemental Environmental Impact Statement



Why do we Plan?

- Assumption is there is a problem to be solved.
- Because we are told to do so (Federal Law in all Protected Areas).
- To change the future.
- Provides a more holistic framework for evaluating **existing and desired conditions**.
- Mechanism for managers to provide not only **technical expertise**, but also interact **collaboratively** with affected publics to ensure **support** and **implementation of actions** to protect the natural resource values of protected areas is accomplished.

How is planning and management accomplished?

- Needs a framework to structure decisions.
- Many frameworks available (ie. ROS, LAC, VERP etc.).
- Consider different scales and examples.
- Think about strategies
 - Competing goals:
 - Recreation vs. protection
 - Access vs. opportunity
 - Low use versus high use areas
 - Concentrate versus disperse use

To be successful in protected area planning and management.....

- A combination of both natural and social sciences are required to:

- Establish goals.
- Set Objectives.

| DEPO Social/Experiential Indicators and Standards | |
|---|--|
| Indicators | Standards/Units of Measure |
| 1. Visitor wait times at shuttle stops | Visitors will not wait for buses at shuttle stops including Adventure Center 6, 9, and 10 more than X minutes, except X% (10-15%) of the time. |
| 1. Visitor density | Visitation will not exceed 23 People At One Time [PAOT] at Rainbow Falls first viewing platform and 26 PAOT at Devils Postpile viewing platform X% (10-15%) of the time. |

- Appropriate **indicators**, **develop standards** and **associated protocols** at a variety of scales.
- **Monitor** and report on the state of **current** to obtain the **desired conditions**.

What are the Wilderness and/or Recreation Planning Frameworks?

- Planning Frameworks:
 - What should they do?
 - Which ones exist?
 - What are the questions that drive them?
 - What have they helped accomplish?

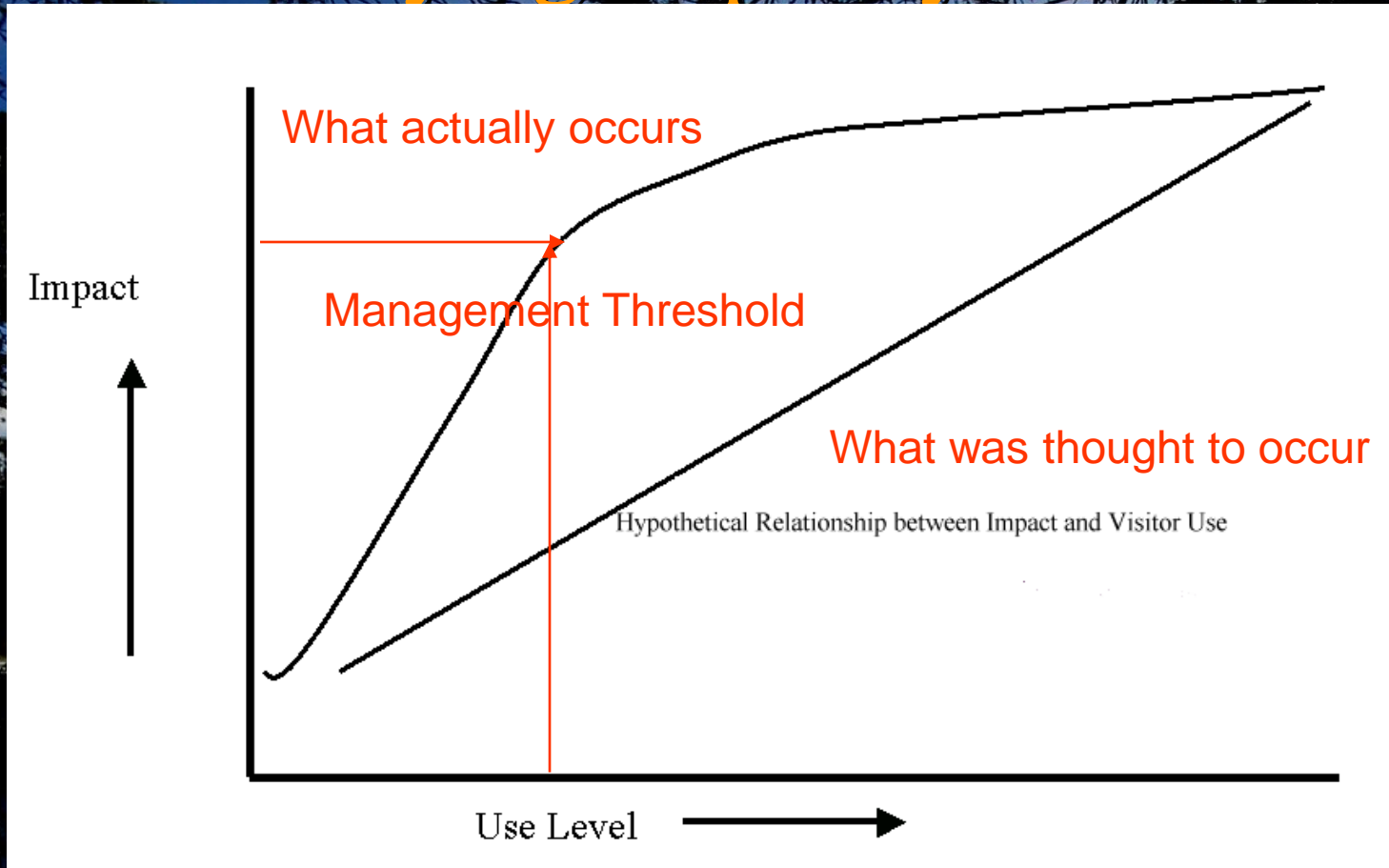
Wilderness and Recreation Planning Frameworks

- Carrying Capacity
 - How many is too many?
- Recreation Opportunity Spectrum
 - What settings exist and what should be provided?
- Limits of Acceptable Change
 - How much change from natural conditions is acceptable?
- Sustainable Recreation
 - ?????????????

What is Carrying Capacity?

- How many is too many before the ecosystem or social system collapses.
- Concept has its origins in **range management** related to how much livestock should be allowed on ranch lands.
- Currently the terminology in the ecological literature used is “**resilience**” – **How resilient is the ecosystem to change?** What are the upper level ecological and social indicators and their thresholds?

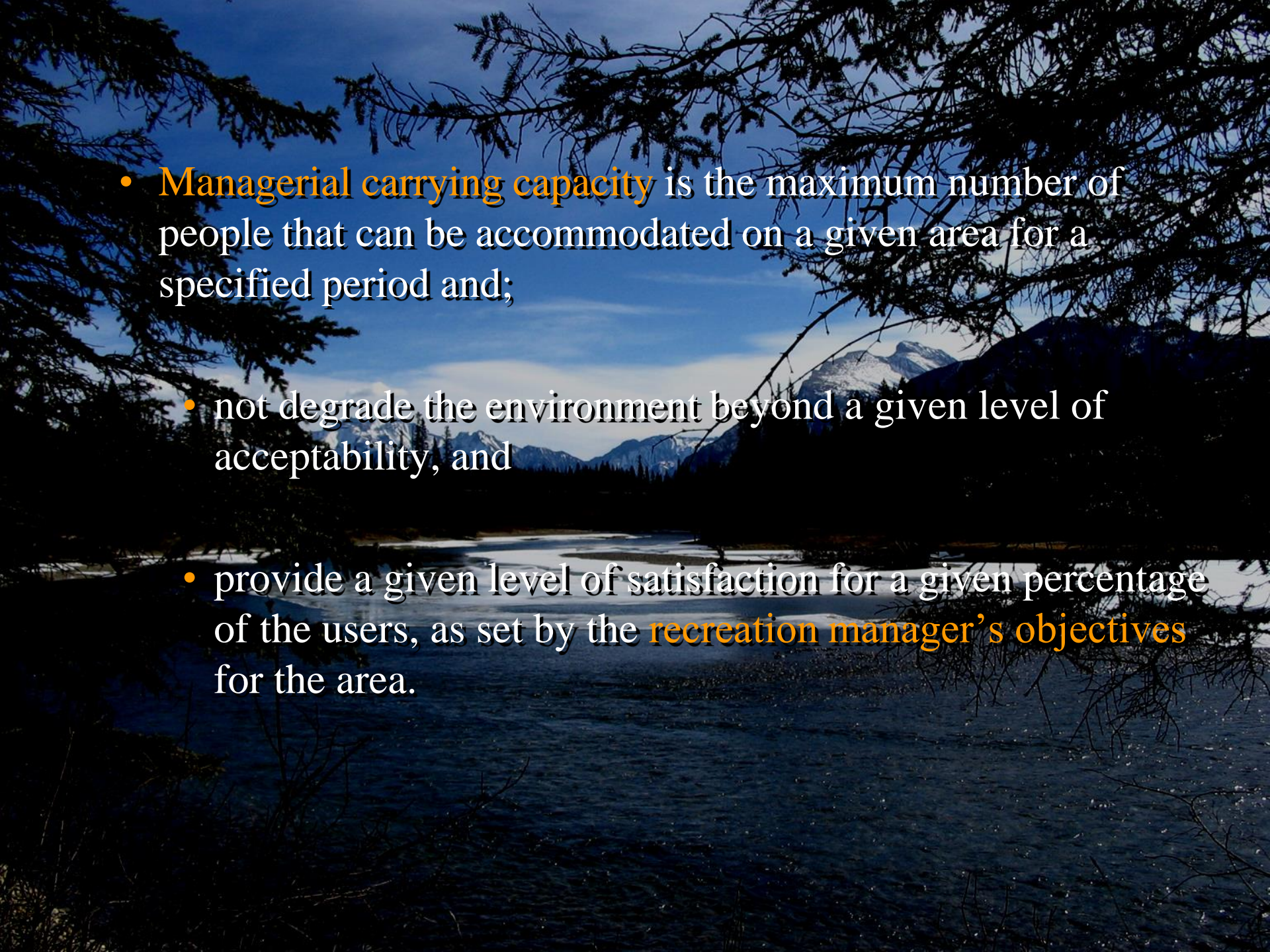
What is Carrying Capacity?



- At the time the carrying capacity concept was evolving, research and management implicitly assumed that use levels and impacts were related linearly.

Carrying Capacity

- **Biophysical carrying capacity** is the maximum number of people that can use a given area without reducing that area's ability to sustain use.
- **Social carrying capacity** is the maximum number of people that can use a given area for a specified period without reducing the level of satisfaction received by any of those persons on the area.

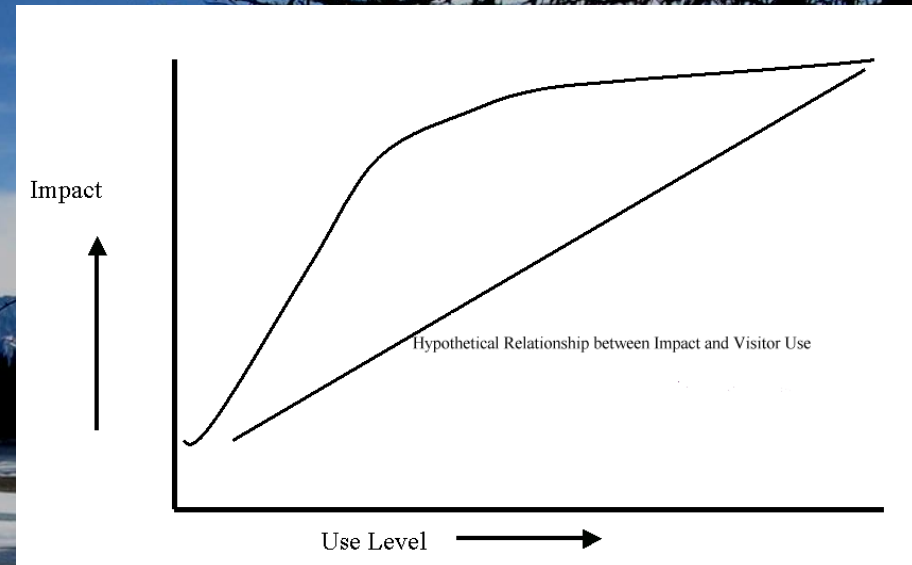
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- **Managerial carrying capacity** is the maximum number of people that can be accommodated on a given area for a specified period and;
 - not degrade the environment beyond a given level of acceptability, and
 - provide a given level of satisfaction for a given percentage of the users, as set by the **recreation manager's objectives** for the area.

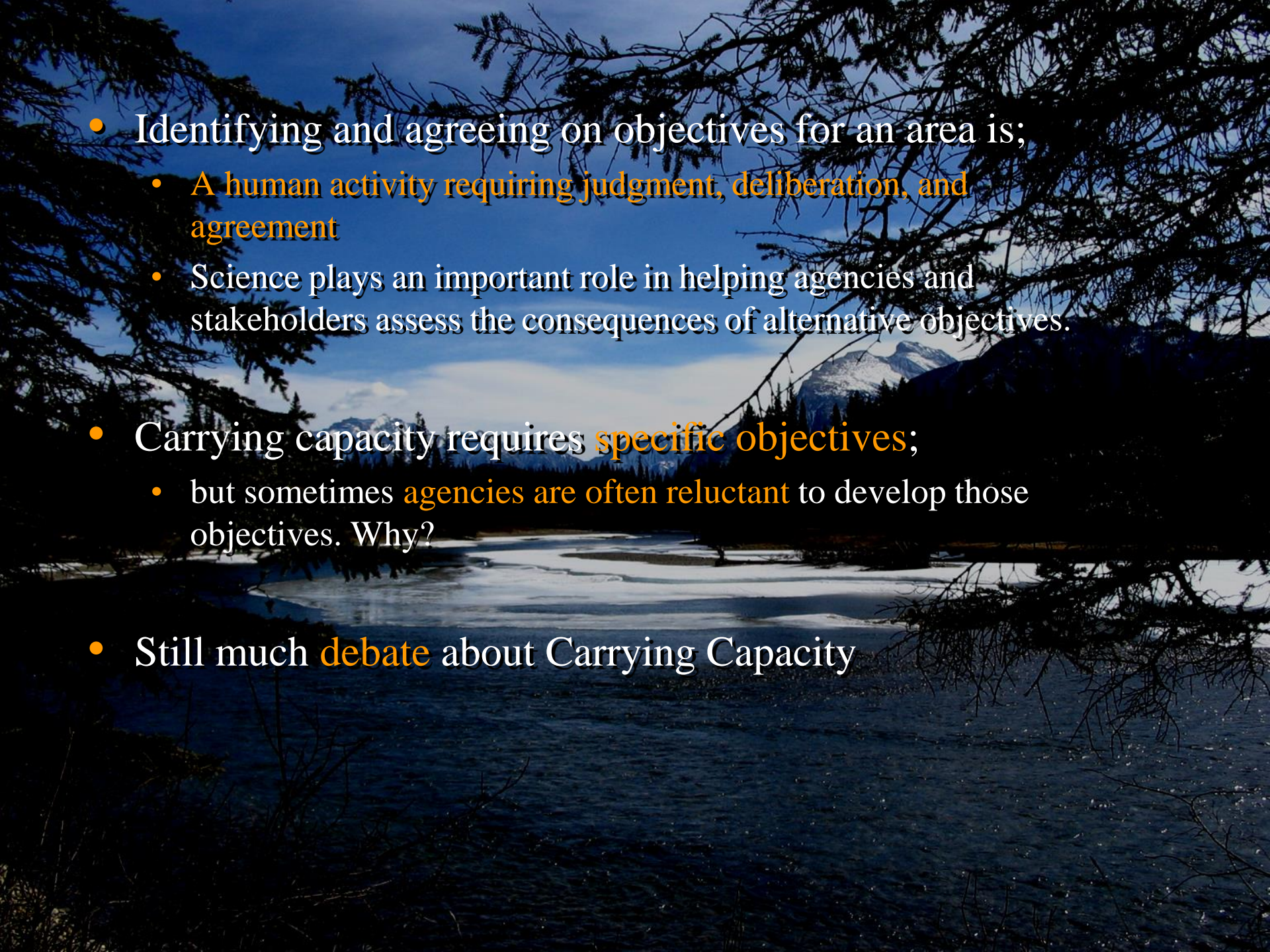


So what have we learned about Carry Capacity over 30+ years?

- Recreation carrying capacity continues to be **perceived as playing a key role** in the management and administration of public lands.
- The search for a recreational carrying capacity becomes constrained because;
 - Agencies want a **number** on the amount of visitors;
 - Management **objectives of many protected areas are so broad, vague and different**;
 - The objectives neither provide the **specificity needed to provide clear direction for management** nor to establish numerical carrying capacities.

- The use-impact problem has been inappropriately framed as a question, “How many is too many?” They are better framed as, “What are the acceptable conditions?” in terms of impact for a particular area.
- If impact is an inevitable consequence of use, then the question **must shift to what is acceptable**. This is where the **stakeholders or users** are an important contribution as an aid to defining what is acceptable.



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- Identifying and agreeing on objectives for an area is;
 - A human activity requiring judgment, deliberation, and agreement
 - Science plays an important role in helping agencies and stakeholders assess the consequences of alternative objectives.
 - Carrying capacity requires specific objectives;
 - but sometimes agencies are often reluctant to develop those objectives. Why?
 - Still much debate about Carrying Capacity

Recreation Opportunity Spectrum System (ROS)

- ROS is a framework for understanding the relationships and interactions between experiences and settings;
- The spectrum has been divided into six major classes for Forest Service Use: Primitive, Semi-Primitive Non-Motorized, Semi-Primitive Motorized, Roaded Natural, Rural and Urban;

Recreation Opportunity Spectrum

P Primitive

- ◆ Very high probability of experiencing solitude, freedom, closeness to nature, tranquility, self-reliance, challenge and risk.
- ◆ Unmodified natural or natural appearing environment.
- ◆ Very low interaction between users.
- ◆ Minimal evidence of other users.
- ◆ Restrictions and controls not evident after entry.
- ◆ Access and travel is non-motorized on trails or cross country.
- ◆ No vegetative alterations.

SPNM Semi-Primitive Non-Motorized

- ◆ High probability of experiencing solitude, closeness to nature, tranquility, self-reliance, challenge and risk.
- ◆ Natural appearing environment.
- ◆ Low interaction between users.
- ◆ Some evidence of other users.
- ◆ Minimum of subtle on site controls.
- ◆ Access and travel is non-motorized on trails, some primitive roads or cross country.
- ◆ Vegetative alterations: sanitation salvage to very small units in size and number, widely dispersed and not evident.

SPM Semi-Primitive Motorized

- ◆ Moderate probability of experiencing solitude, closeness to nature, tranquility. High degree of self-reliance, challenge and risk in using motorized equipment.
- ◆ Predominantly natural appearing environment.
- ◆ Low concentration of users but often evidence of others on trails.
- ◆ Minimum on site controls and restrictions present but subtle.
- ◆ Vegetative alterations very small in size and number widely dispersed and visually subordinate.

RN Roaded Natural

- ◆ Opportunity to affiliate with other users in developed sites but with some chance for privacy. Self-reliance on outdoor skill of only moderate importance. Little challenge and risk.
- ◆ Mostly natural appearing environment as viewed from sensitive roads and trails.
- ◆ Interaction between users at camp sites is of moderate importance.
- ◆ Some obvious on site controls of users.
- ◆ Access and travel is conventional motorized including sedan, trailers, RVs and some motor homes.
- ◆ Vegetative alterations done to maintain desired visual and recreational characteristics.

RM Roaded Modified

- ◆ Opportunity to get away from others, but with easy access. Some self-reliance in building own camp site and use of motorized equipment. Feeling of independence and freedom. Little challenge and risk.
- ◆ Substantially modified environment except for camp site. Roads, landings, slash and debris may be strongly dominant from within yet remain subordinate from distant sensitive roads and highways.
- ◆ Moderate evidence of other users on roads. Little evidence of others or interaction at camp sites.
- ◆ Little on site controls of users except for gated roads.
- ◆ Conventional motorized access including sedan, trailers, RVs, ORVs and motor bikes.
- ◆ Shape and blend vegetative alterations. Maintain camp sites and immediate foreground to site in natural appearing state.

R Rural

- ◆ Opportunity to observe and affiliate with other users is important as is convenience of facilities and recreation opportunities. Outdoor skills, risk and challenge are unimportant except for competitive sports.
- ◆ Natural environment is culturally modified yet attractive (i.e. pastoral farmlands). Backdrop may range from alterations not obvious to dominant.
- ◆ Interactions between users may be high as is evidence of other users.
- ◆ Obvious and prevalent on site controls.
- ◆ Access and travel facilities are for individual intensified motorized use.

U Urban

- ◆ Opportunity to observe and affiliate with other users is very important as is convenience of facilities and recreation opportunities. Outdoor skills, risk and challenge are unimportant except for competitive sports.
- ◆ Urbanized environment with dominant structures, traffic lights and paved streets. May have natural appearing backdrop. Recreation places may be city parks and large resorts.
- ◆ Interaction between large numbers of users is high.
- ◆ Intensive on site controls are numerous.
- ◆ Access and travel facilities are highly intense, motorized and often with mass transit supplements.
- ◆ Vegetation is planted and maintained.

Recreation Opportunity Spectrum

| P Primitive | SPNM Semi-Primitive Non-Motorized | SPM Semi-Primitive Motorized | RN Roaded Natural | RM Roaded Modified | R Rural | U Urban |
|-----------------------|--|---|--------------------------------|---------------------------------|-------------------|-------------------|
|-----------------------|--|---|--------------------------------|---------------------------------|-------------------|-------------------|

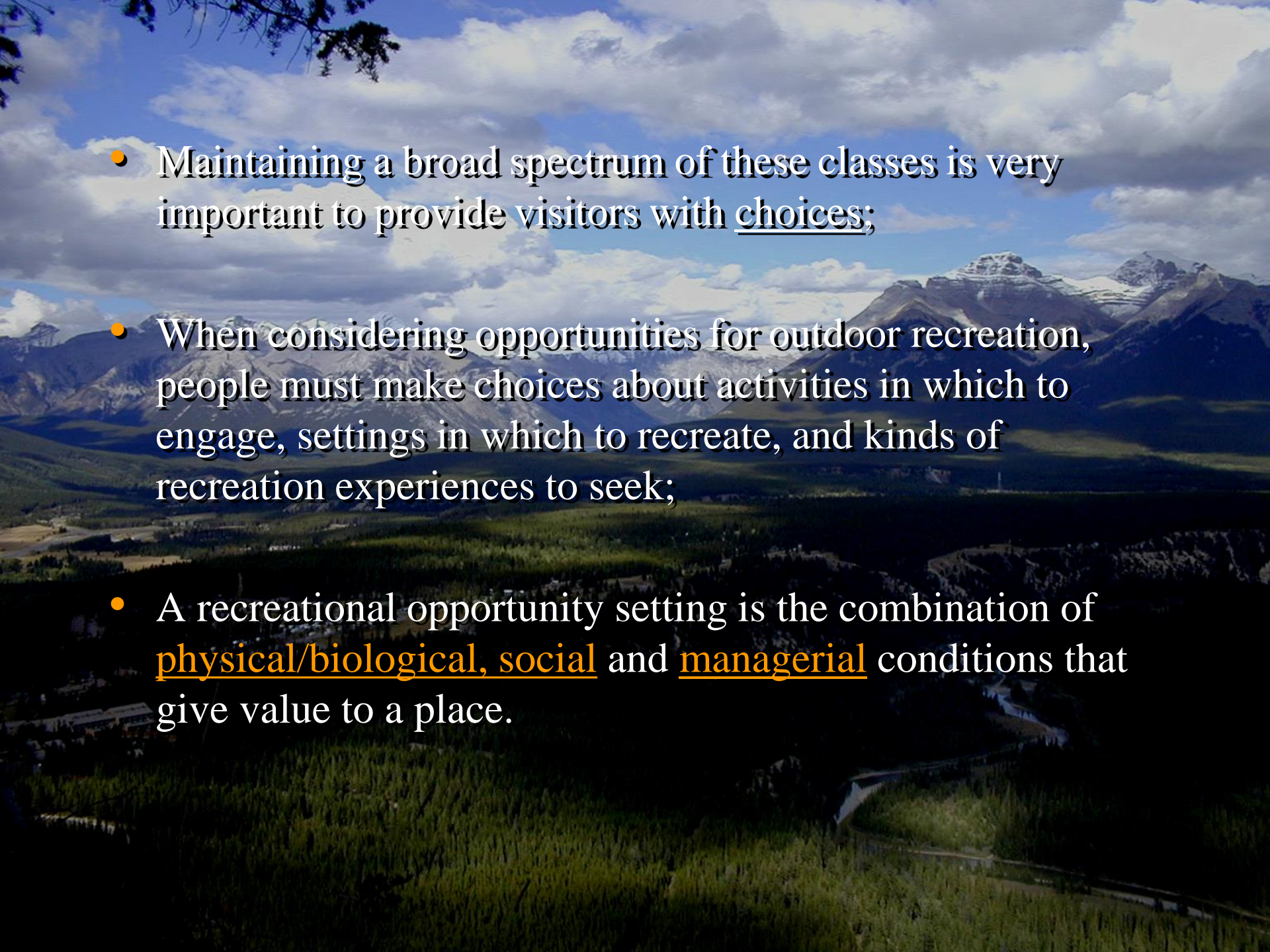
| SETTING | Physical Setting West | | | | | | | |
|---------|------------------------|--|--|--|--|--|--|--|
| | Physical Setting East | | | | | | | |
| | Social Setting | | | | | | | |
| | Managerial Setting | | | | | | | |
| | Vegetative Alterations | | | | | | | |
| | Access | | | | | | | |
| | Winter Recreation | | | | | | | |
| | Wild & Scenic Rivers | | | | | | | |

Recreation Opportunity Spectrum

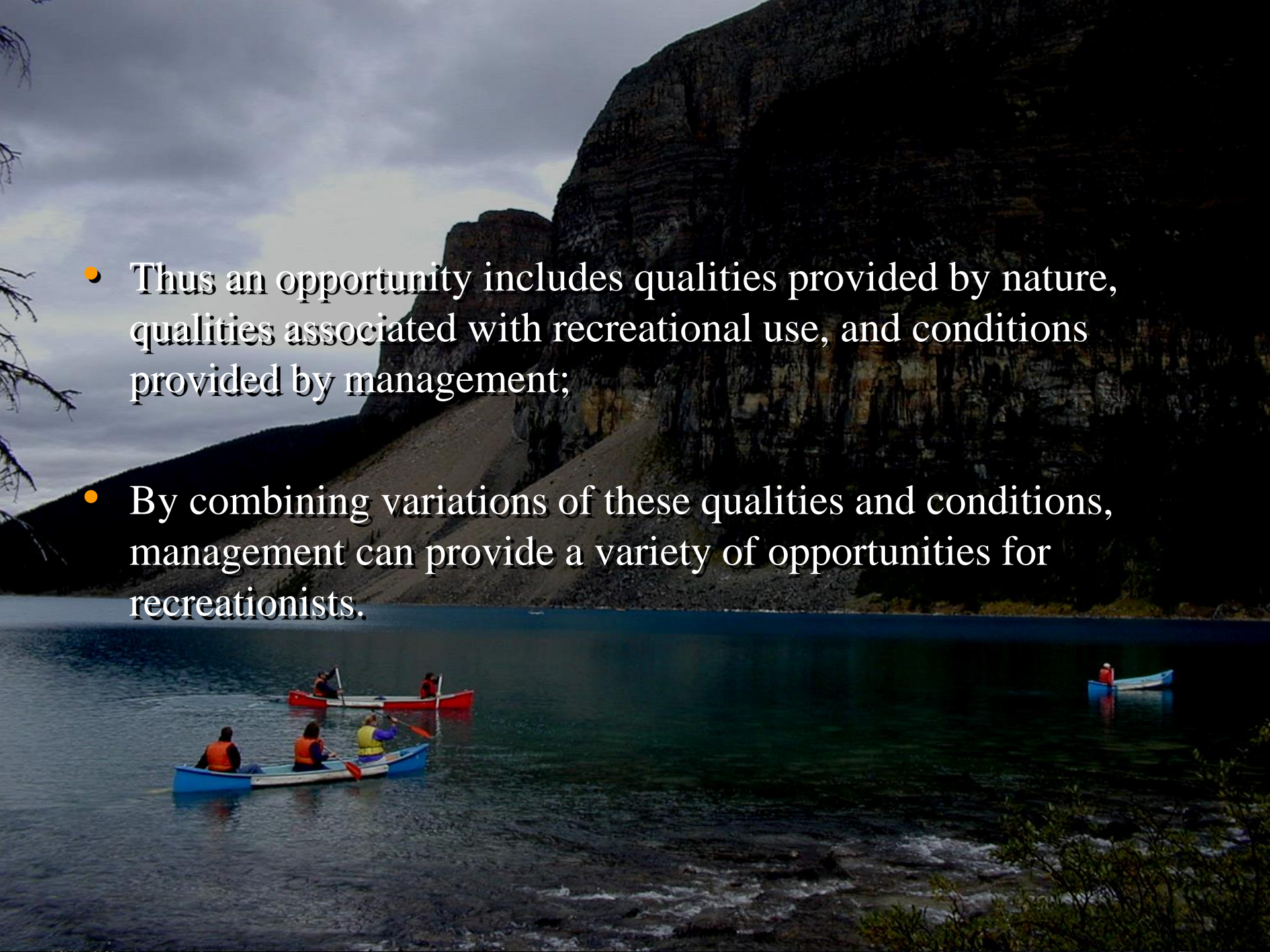
| P Primitive | SPNM Semi-Primitive Non-Motorized | SPM Semi-Primitive Motorized | RN Roaded Natural | RM Roaded Modified | R Rural | U Urban |
|----------------|---|------------------------------------|-------------------------|--------------------------|------------|------------|
|----------------|---|------------------------------------|-------------------------|--------------------------|------------|------------|

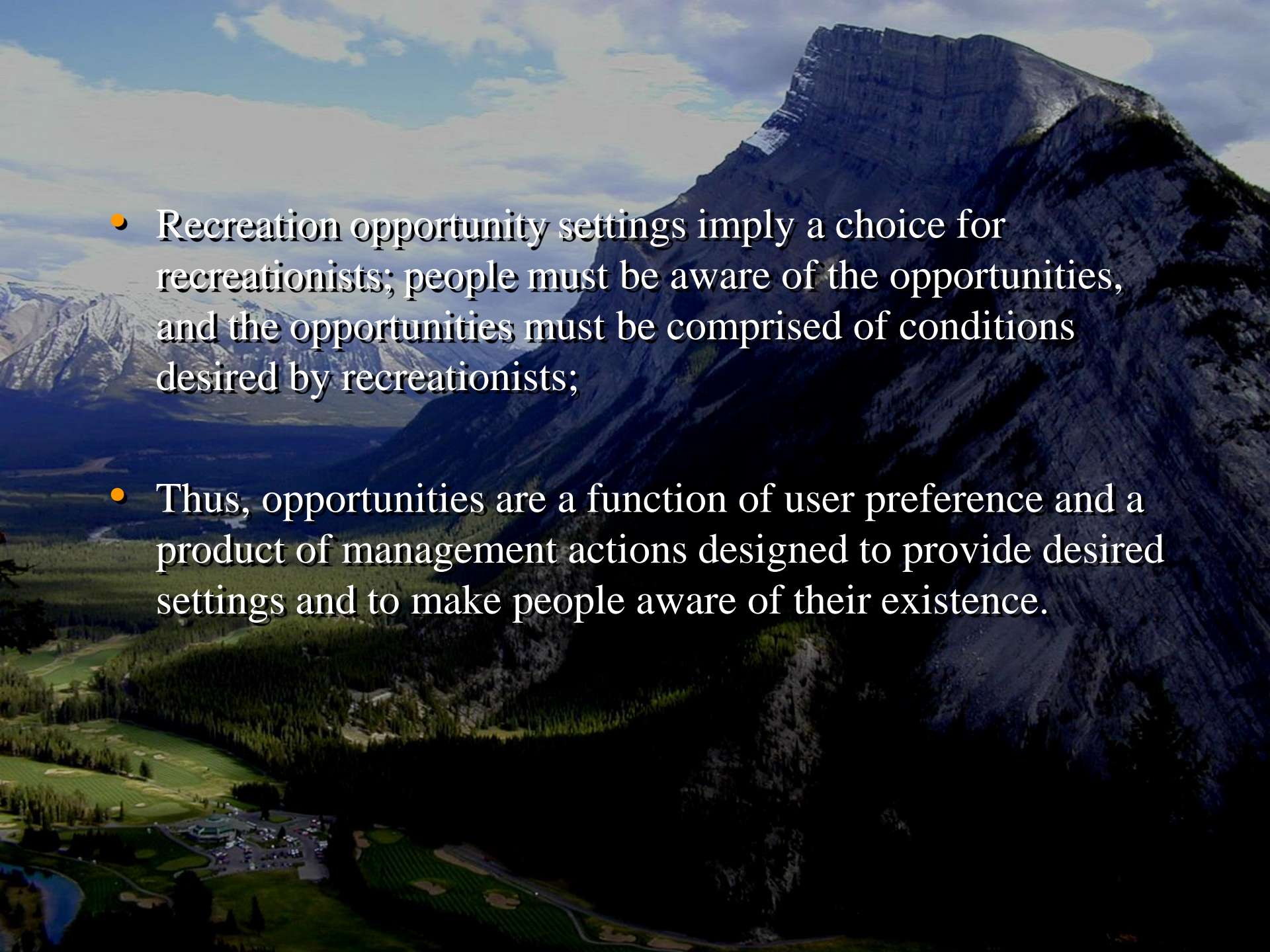
ACTIVITIES - FACILITIES

| | | | | | | | |
|-------------------|---|---|--|---|---|---|---|
| Accessibility |  |  |  |  |  |  |  |
| Fishing Sites |  |  |  |  |  |  |  |
| Camp Sites |  |  |  |  |  |  |  |
| Sanitation |  |  |  |  |  |  |  |
| Eating Facilities |  |  |  |  |  |  |  |
| Water Supply |  |  |  |  |  |  |  |
| Signing |  |  |  |  |  |  |  |
| Interpretive |  |  |  |  |  |  |  |
| Water Crossing |  |  |  |  |  |  |  |

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- A scenic landscape photograph of a mountain valley. In the foreground, a dense green forest covers a hillside. A river winds through the valley floor. In the background, majestic mountains with snow-capped peaks rise against a blue sky with scattered white clouds. The overall scene is a beautiful representation of a natural recreational setting.
- Maintaining a broad spectrum of these classes is very important to provide visitors with choices;
 - When considering opportunities for outdoor recreation, people must make choices about activities in which to engage, settings in which to recreate, and kinds of recreation experiences to seek;
 - A recreational opportunity setting is the combination of physical/biological, social and managerial conditions that give value to a place.

- Thus an opportunity includes qualities provided by nature, qualities associated with recreational use, and conditions provided by management;
- By combining variations of these qualities and conditions, management can provide a variety of opportunities for recreationists.



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- Recreation opportunity settings imply a choice for recreationists; people must be aware of the opportunities, and the opportunities must be comprised of conditions desired by recreationists;
 - Thus, opportunities are a function of user preference and a product of management actions designed to provide desired settings and to make people aware of their existence.

Why is ROS an important Tool?

- Provides a mechanism to inventory existing opportunities;
- Analyze the effects of other resource activities;
- Estimate the consequences of management decisions on planned opportunities;
- Link visitor desires with recreation opportunities;
- Identify complementary roles of all recreation suppliers;
- Develop standards and guidelines for planned settings and monitoring activities;

Definition of the ROS Classes

Urban (U) - Paved roads, many encounters with other people, high management presence and facilities, low degree of "naturalness". An Urban designation is found in areas such as the City of Sedona or Village of Oak Creek.

Rural (R) - Less development than in Urban, typical of agricultural areas. Paved or gravel all-weather roads, moderate to high number of encounters with other people, high management presence, facilities are generally more rustic but common and convenient, moderate degree of "naturalness". Areas such as the Neighborhoods or pockets of development in Oak Creek Canyon such as Garland's store area are examples of Rural class areas.

Road Natural (RN) - Paved or gravel all-weather roads, moderate number of encounters, moderate management presence, rustic facilities, moderate to high degree of "naturalness". The Gateway along Highway 89A and 179 and portions of the Red Cliff MA are typical of Road Natural areas.

Semi-Primitive Motorized (SPM) - Primitive roads and trails, low number of encounters with other people, subtle and limited management presence, rustic facilities constructed of native materials, high degree of "naturalness" with infrequent evidence of human activity. Most of the Savannah MA is typical of Semi-Primitive Motorized areas.

Semi-Primitive Non-Motorized (SPNM) - Trail access only — no motorized vehicles, low number of encounters with other people, subtle and limited management presence, scarce rustic facilities constructed of native materials, high degree of "naturalness" with infrequent evidence of human activity. The Primitive MA and the non-roaded area northwest of House Mountain in the Savannah MA are typical of Semi-Primitive Non-Motorized areas.

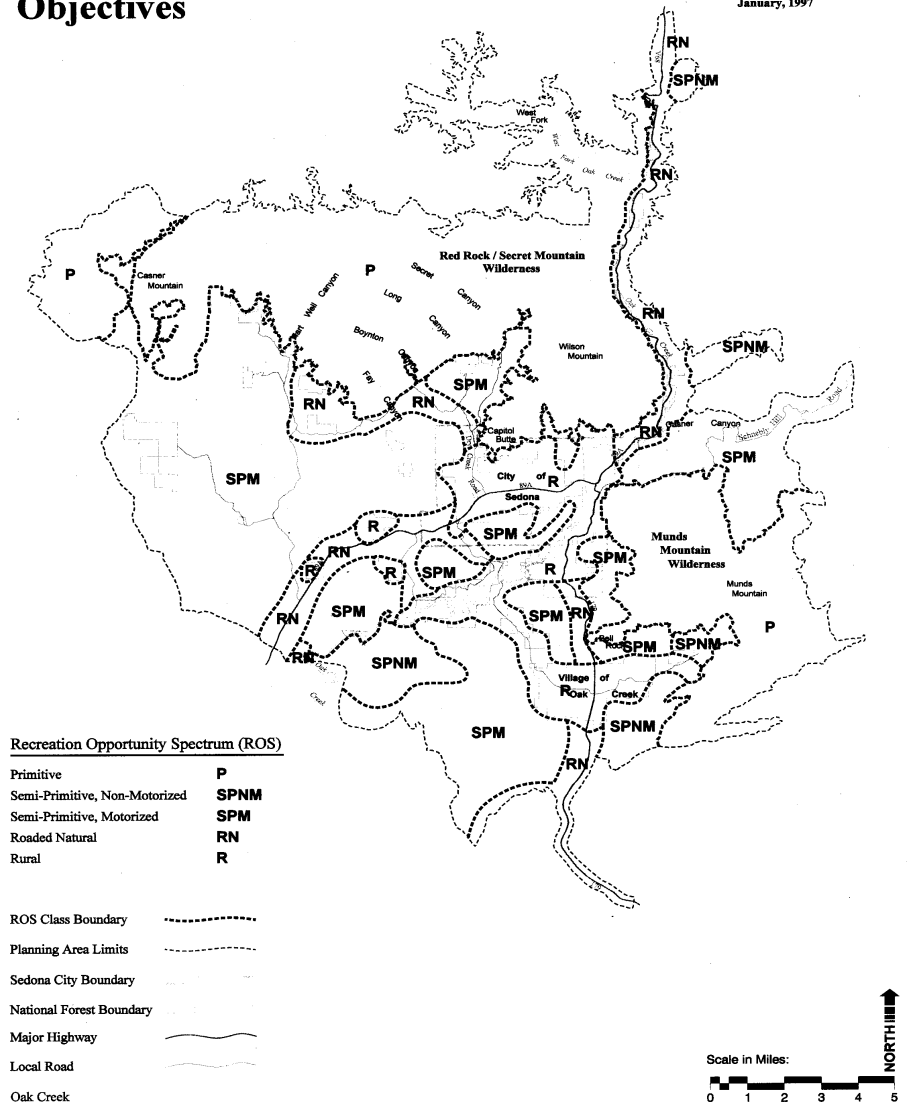
Primitive (P) - Cross-country or primitive trail access, very few encounters with other people, low to non-existent management presence, facilities only for site protection — not for comfort, very high degree of "naturalness". Wildernesses are typically managed for primitive attributes. Some exceptions are Bell Rock and Wildernesses adjacent neighborhoods.

Map 6

Recreation Opportunity Spectrum Objectives

Proposed Actions

National Forest Lands in the Sedona Area
Coconino National Forest • Sedona Ranger District
January, 1997



Criteria to Evaluate Settings and Derive ROS Classes

- Physical Setting
- Social Setting
- Managerial Setting

SOCIAL SETTING CRITERIA

- Social Setting Criteria is used to further define ROS classes. The criteria below should be mapped based on field observations and mapped features such as roads, buildings, and land use.
 - Primitive: Usually less than 6 parties per day encountered on trails and less than 3 parties visible at campsite.
 - Semi-Primitive Non-Motorized: Usually 6-15 parties per day encountered on trails and 6 or less visible at campsites.
 - Semi-Primitive Motorized: Low to moderate contact frequency.
 - Roaded Natural: Frequency of contact is moderate to high on roads, low to moderate on trails and away from roads
 - Rural and Urban: Frequency of contact is moderate to high in developed sites, on roads and trails and water surfaces.

MANAGERIAL SETTING CRITERIA

- Primitive: On-site regimentation is low with controls primarily off site. Controls can be physical (such as barriers) regulatory (such as permits).
- Semi-Primitive Non-Motorized: On-site regimentation and controls present but subtle.
- Semi-Primitive Motorized: On-site regimentation and controls present but subtle.
- Roaded Natural: On-site regimentation and controls are noticeable but harmonize with the natural environment.

Start here to summarize

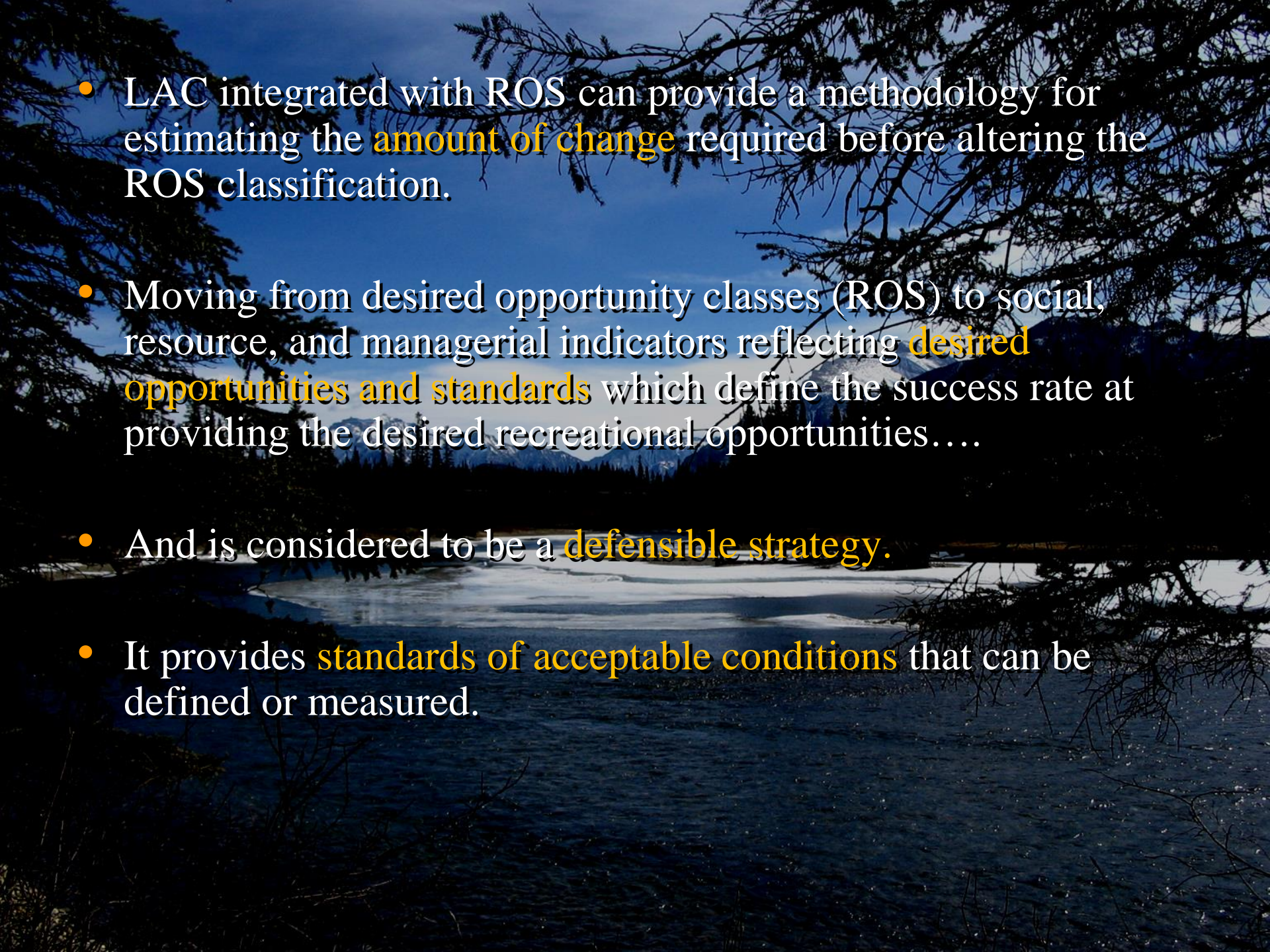


What have we learned over the last Thirty Years from Implementing the ROS?

- ROS has been used to **describe what conditions exist** rather than prescribe what should be.
- It suffers from the same problem with the social setting criteria with defining a **magic number** on encounter levels.
- **Transferability of social setting criteria** has been problematic between landscapes.
- **Monitoring** is not a component of ROS.
- **No public engagement** in the formal framework.

Limits of Acceptable Change (LAC)

- LAC acknowledges that human-induced change will occur.
- It addresses the management question of – “How much change from natural conditions is acceptable?”
- It takes the next step to determine how much change will be allowed to occur, where, and the actions needed to control it;
- The focus of LAC is to evaluate the boundaries of change and establish standards on how much change will be tolerated before the quality of the recreational opportunity offered in a ROS class is affected;

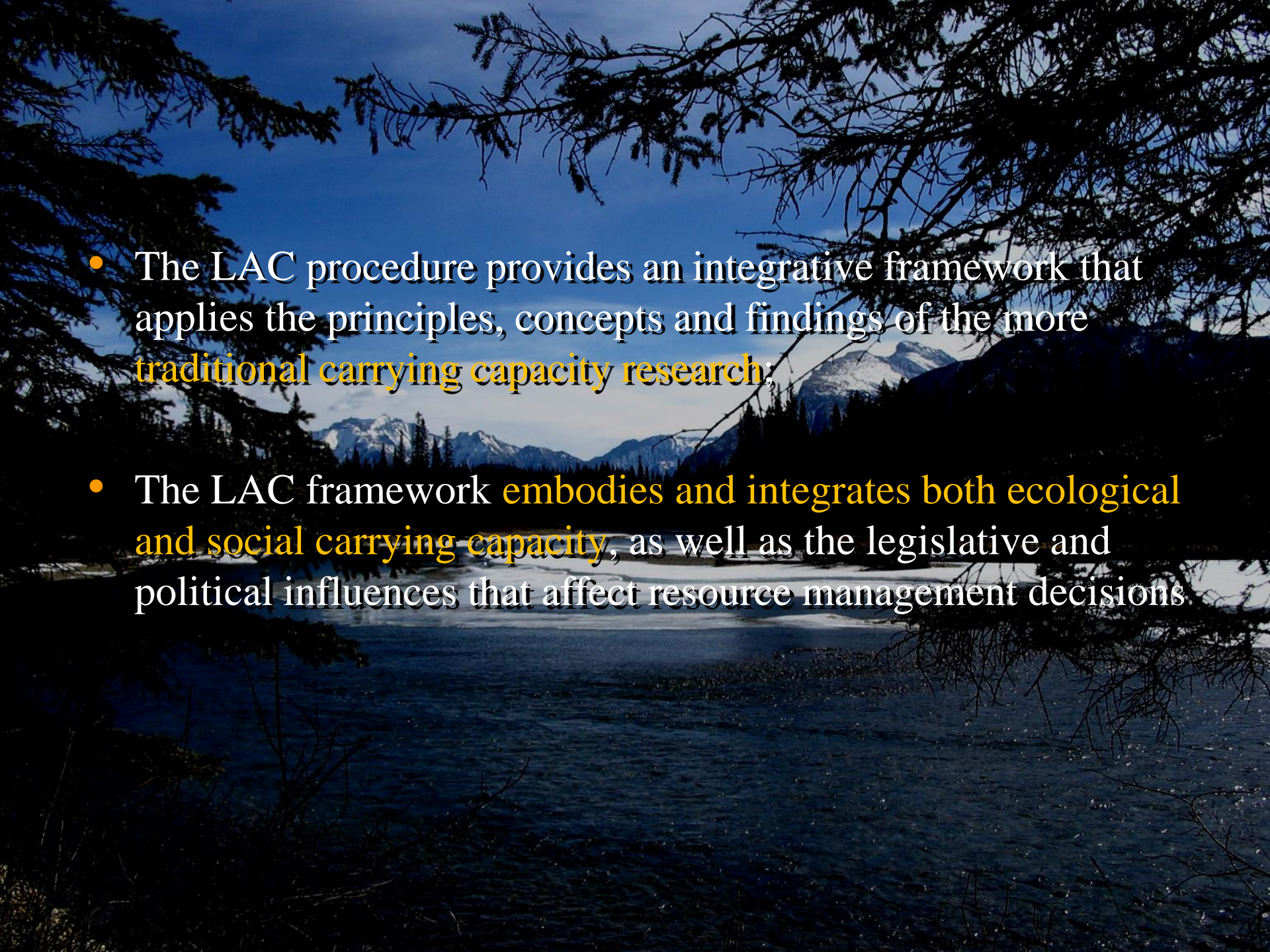
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- LAC integrated with ROS can provide a methodology for estimating the **amount of change** required before altering the ROS classification.
 - Moving from desired opportunity classes (ROS) to social, resource, and managerial indicators reflecting **desired opportunities and standards** which define the success rate at providing the desired recreational opportunities....
 - And is considered to be a **defensible strategy**.
 - It provides **standards of acceptable conditions** that can be defined or measured.

LAC -What is it?

- First, it focuses more on conditions of the experience or the resource to be maintained, rather than amount and type of use on area resources;
- Second, it recognizes that any use of an area causes some change or impact to the experience and the resource, and deciding on how much change is too much change is largely a value judgment;
- Third, it provides a framework for a defensible value judgment.

The LAC Process

- Step 1: Identify Area Issues and Concerns;
- Step 2: Define and Describe Opportunity Classes;
- Step 3: Select Indicators of Resource and Social Conditions;
- Step 4: Inventory Existing Resource and Social Conditions;
- Step 5: Specify Standards for Resource and Social Indicators for each Opportunity Class;
- Step 6: Identify Alternative Opportunity Class Allocations Reflecting Area Issues and Concerns and Existing Resource and Social Conditions;
- Step 7: Identify Management Actions for Each Key Issue and Opportunity Class
- Step 8: Evaluate and Select a Preferred Alternative
- Step 9: Implement Actions and **Monitor Conditions**

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- The LAC procedure provides an integrative framework that applies the principles, concepts and findings of the more traditional carrying capacity research;
 - The LAC framework embodies and integrates both ecological and social carrying capacity, as well as the legislative and political influences that affect resource management decisions.

Advantages of LAC over Traditional Carrying Capacity Models

- Involves public input at several points during the decision-making process;
 - During identification of resource concerns and issues (step 1);
 - When identifying alternative recreation opportunity classes (step 6);
 - When Evaluating Costs and Benefits of Management Alternatives (step 8).

The LAC process recognizes the need for monitoring resource and social conditions.

- First, it tells the manager whether conditions on-site meet the desired resource and social conditions stated in the area standards;
- Second, it shows trends (improving or declining) in resource or experience conditions so managers can take appropriate actions to restore experience conditions;
- Third, monitoring provides the manager with important information on whether existing standards remain acceptable across time.

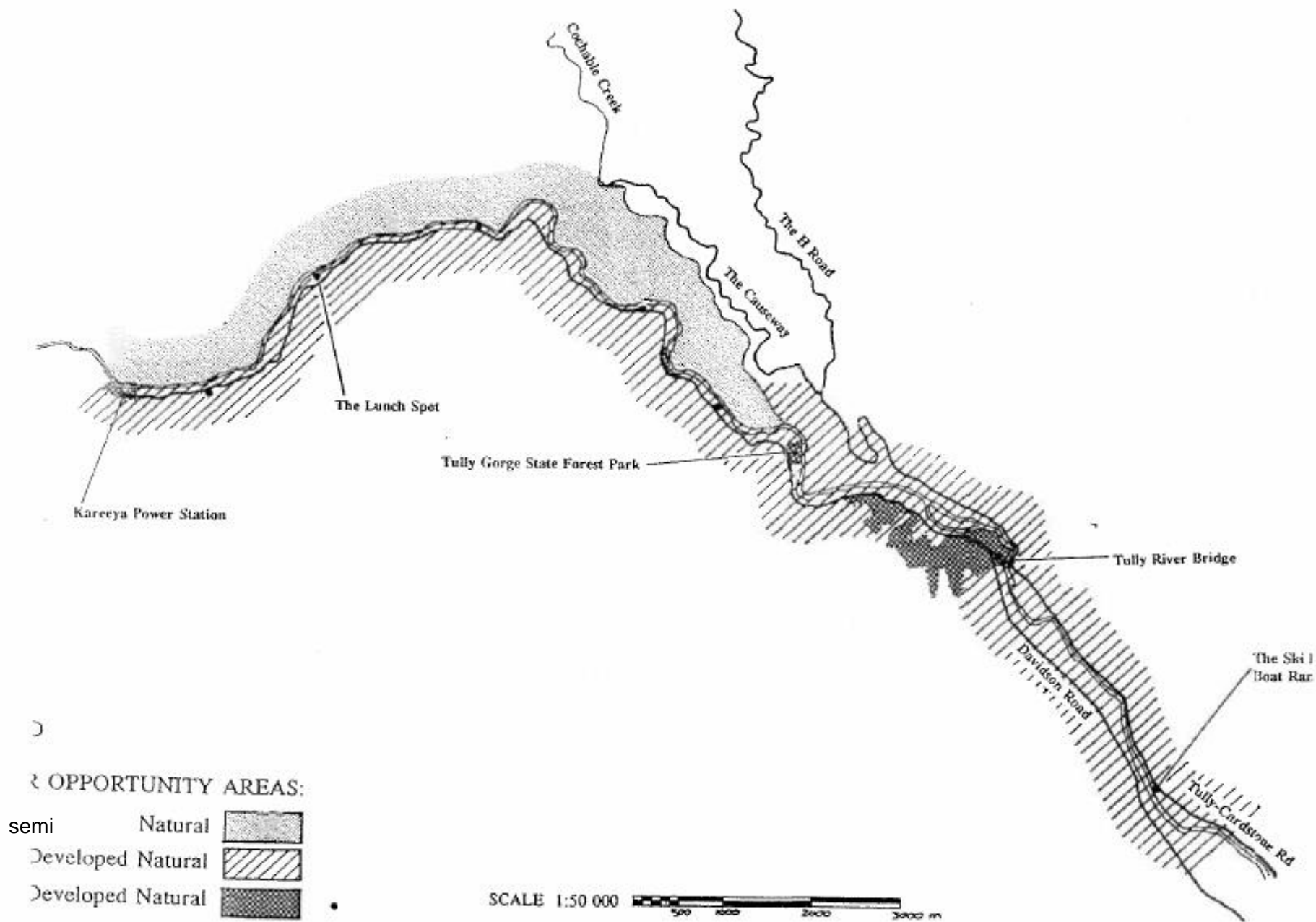


TABLE 1.1 RECOMMENDED VISITOR OPPORTUNITY AREA (ROS CLASS) DESCRIPTIONS

| VISITOR OPPORTUNITY AREAS | | | |
|--|--|--|--|
| | Natural | Semi-Developed Natural | Developed Natural |
| Physical Setting Description | Predominantly intact Natural Forest with little to no evidence of disturbance. The character is consistent with the surrounding World Heritage Area. Access modes include informal walking tracks, swimming and non-motorised vessels in the river. | Predominantly natural Forest and River Environment with some evidence of human development in selected and limited locations. Access modes include formal and informal walking tracks, non-motorised vessels in the river and flying foxes. Sealed and unsealed roads are generally within 1/2 km, but are not within this VOA. | Predominantly a Semi-Natural Forest, Woodland and Parkland environment with obvious evidence of human development in selected locations, but with roads, services and facilities designed for low visual/environmental impacts. Access modes include motorised vehicles and bicycles on sealed and unsealed roads and walking tracks. |
| Social Setting Description | Outstanding opportunity for isolation and solitude. Visitors must be almost totally self-reliant. Almost no support services and facilities provided | Moderate to low opportunities for isolation and solitude. Moderate degree of self-reliance required, but basic visitor services and facilities are provided for interpretation, public safety and resource protection. | Limited opportunities for isolation and solitude. Low degree of self-reliance required. Visitor services and facilities provided at level that satisfies most requirements for Moderate levels of comfort and convenience. |
| Managerial Setting Description | On-site regimentation and controls present, but subtle. Motorised use is not permitted. World Heritage Area regulations apply. Environmentally Sustainable Development principles to apply to any recreational facilities siting and design. Minimal signage. Regular monitoring of LAC Indicators on a three to five year basis. On-going management costs are to be monitored and the most cost-effective delivery of services should be provided. | On-site regimentation and controls are noticeable, but harmonise with the natural environment. World Heritage Area regulations apply, however, QEC regulations of water releases from Kareeya Power Station have a major influence on river recreational uses and controls. Moderate levels of signage may be required for use and safety regulations. Some self-regulation by the Commercial Rafting/kayaking Companies will be required, along with enforcement of the Queensland Whitewater Code of Practice by the Depart. of Transport, Marine and Ports Division. Regular monitoring of LAC Indicators will be required on a one to five year basis. On-going management costs are to be monitored and the most cost effective delivery of services should be provided. | On-site regimentation and controls are obvious, but harmonise with the natural environment. World Heritage Area regulation apply, however, QEC management requirements regarding Kareeya Power Station and access to QEC facilities within Tully Gorge will influence policies. Cardstone Shire policies regarding the Tully-Cardstone Road Reserve management and maintenance will also apply. Regular monitoring of LAC Indicators on a 3 year to 10 year basis will be required. On-going management costs are to be monitored and the most cost effective delivery of services should be provided. |
| Recreation Experience Description | High probability of experiencing isolation from the sights and sounds of people most of the time. High degree of challenge and risk. Low to very low inter-party encounters and contacts. Very high appreciation of World Heritage Area and natural values. Semi-wilderness to wilderness experience. | Moderate to Low probability of experiencing isolation from the sights and sounds of people most of the time, but moderate to high probability for experiencing isolation during the early morning, late afternoon and evening hours. Opportunity for a high degree of interaction with the natural environment. High degrees of challenge and risk associated with river rafting/kayaking, but how degrees with most other activities. Moderate to High appreciation of World Heritage values. Semi-wilderness to semi-developed experience. | Low Probability of experiencing isolation from the sights and sounds of people most of the time, but moderate probability for experiencing isolation during the early morning, late afternoon and evening hours. Opportunity for a moderate degree of interaction with the natural environment. Low degrees of challenge and risk. Moderate appreciation of World Heritage Values. Semi-developed experience. |

TABLE 11.1 LAC FACTORS AND INDICATORS SELECTED FOR TULLY RIVER GORGE

Continued...

| FACTOR | INDICATOR |
|---|---|
| SOCIAL FACTORS | |
| F. Solitude while Travelling via Road, River or Walking Track | <p>9. Visitor Perceptions of Crowding (refer to Chapter 3, Section 3.4.4, Chapter 8, Section 8.3.1 and Chapter 12 of this report).</p> <p>10. No. of Daily Inter-party Encounters while Travelling (refer to Stankey et al, 1985, pp 24-29 and to Chapter 3, Section 3.4.4 and Chapter 8, Section 8.3.1 of this report).</p> |
| G. Solitude while Camped or Picnicking | <p>11. Visitor Perceptions of Crowding (refer to Chapter 3, Section 3.4.4, Chapter 8, Section 8.3.1 and Chapter 12 of this report).</p> <p>12. No. of Other Parties Camped within Sight or Sound per Day (refer to Stankey et al, 1985, pp 24-29 and Chapter 12 of this report).</p> |
| H. Satisfaction with Recreation Experience | <p>13. Changes in Visitor Satisfaction Levels Relative to the Perceived Importance Level of Specific Expectation Factors (refer to Chapter 3, Section 3.4.4, Chapter 8, Section 8.3.1 and Chapter 12 of this report).</p> |
| I. Visitor Safety while Rafting on River | <p>14. Buffer Time between Individual Raft Groups on River (refer to Chapter 7, Section 7.4 of this report).</p> <p>15. Changes in the Number of Serious Rafting, Kayaking, Canoeing, Swimming or other Water-based Recreation Accidents or Incidents on the River related to Changes in River Use Volumes, Times, Safety Programs or Training or Other Factors (refer to Table 11.4 of this report).</p> |

TABLE 11.2 LAC STANDARDS RECOMMENDED FOR RESOURCE AND SOCIAL INDICATORS WITHIN THE VISITOR OPPORTUNITY AREAS OF TULLY RIVER GORGE

| RESOURCE INDICATORS | VISITOR OPPORTUNITY AREAS | | |
|---|--|--|--|
| | Natural | Semi-Developed Natural | Developed Natural |
| F. Solitude while Travelling via Road, River or Walking Track | <p>9. Visitor perceptions of crowding as measured on a 9-point scale (as per Q17 of the rafting survey - Chapter 8), should not be rated as 3 or greater by more than 10% of those interviewed along the walking tracks or at use sites within this Visitor Opportunity Area (VOA) .</p> <p>10. The number of other parties (groups) encountered daily while on walking tracks in this VOA should not exceed 3 per day for more than 10% of those interviewed in this area (except on specially designated interpretive trails).</p> | <p>9. Visitors perceptions of crowding on a 9-point scale (as per Q17 of the rafting survey - Chapter 8) should not be rated as 3 or greater by more than 80% of rafters/kayakers interviewed at Tully River Gorge. The percentage of rafters/kayakers rating crowding on the river as 8 or 9 should not exceed 15% of those interviewed.</p> <p>The percentage of walkers rating crowding as 3 or greater on the 9-point scale should not exceed 50% of those interviewed along selected walking tracks. The percentage of walkers rating crowding as 8 or 9 on the scale should not exceed 20% when interviewed .</p> <p>10. The number of other parties (groups) encountered should not exceed 6 encounters on walking tracks for more than 50% of walkers when interviewed along bushwalking tracks (except on specially designated high profile interpretive trails).</p> | <p>9. Visitor perceptions of crowding on a 9-point scale (as per Q17 of the rafting survey - Chapter 8) should not be rated as 8 or 9 by more than 30% of those interviewed along Tully Gorge Road or walking tracks in this VOA .</p> <p>10. The number of other parties (groups) encountered daily should not exceed 20 on walking tracks for more than 50% of walkers when interviewed along selected bushwalking tracks.</p> |

| | Natural | Semi-Developed Natural | Developed Natural |
|--|--|---|---|
| H. Satisfaction with Recreation Experience | <p>13. The mean satisfaction rating on a 9-point scale perceived by all visitors interviewed (as per Question 17 of the rafting survey - refer to Chapter 8) should be at least 4.0 (Moderately Satisfied) or greater for the following Management Factors:</p> <ul style="list-style-type: none"> • To Find Peace and Solitude; • To Have a Wilderness Experience; • To Learn about the Wet Tropics WHA; • To be Away from Crowds; • To Learn about the Rainforest | <p>13. The mean satisfaction rating on a 9 point scale perceived by all commercial rafting visitors interviewed (as per Question 18 of the rafting survey - refer to Chapter 8) should be at least 4.0 (Moderately Satisfied) or greater for the following Management Factors:</p> <ul style="list-style-type: none"> • To Learn about the Natural Environment; • To Have a Wilderness Experience; • To Learn How to Raft on a Whitewater River; • To Learn about the Wet Tropics WHA and Its Wild Rivers; • To Find Very Clean or Pristine Water in the River; • To Enjoy the Scenic Beauty of the River Gorge • To Learn about the Rainforest • To Have a Safe River Trip <p>The mean satisfaction rating on a 9 point scale perceived by all visitors interviewed along walking tracks and at observation or interpretive points (as per Question 18 of the rafting survey - refer to Chapter 8) should be at least 4.0 (Moderately Satisfied) or greater for the following:</p> | <p>13. The mean satisfaction rating on a 9 point scale perceived by all visitors interviewed at campgrounds, along walking tracks, and at observation or interpretive points (as per Question 18 of the rafting survey - refer to Chapter 8) should be at least 4.0 (Moderately Satisfied) or greater for the following Management Factors:</p> <ul style="list-style-type: none"> • To Learn about the Natural Environment; • To Learn about the Wet Tropics WHA and Its Wild Rivers; • To Learn about the Aboriginal Culture • To Enjoy the Scenic Beauty of the River Gorge • To Learn about the Rainforest |

Definition of the ROS Classes

Urban (U) - Paved roads, many encounters with other people, high management presence and facilities, low degree of "naturalness". An Urban designation is found in areas such as the City of Sedona or Village of Oak Creek.

Rural (R) - Less development than in Urban, typical of agricultural areas. Paved or gravel all-weather roads, moderate to high number of encounters with other people, high management presence, facilities are generally more rustic but common and convenient, moderate degree of "naturalness". Areas such as the Neighborhoods or pockets of development in Oak Creek Canyon such as Garland's store area are examples of Rural class areas.

Road Natural (RN) - Paved or gravel all-weather roads, moderate number of encounters, moderate management presence, rustic facilities, moderate to high degree of "naturalness". The Gateway along Highway 89A and 179 and portions of the Red Cliff MA are typical of Road Natural areas.

Semi-Primitive Motorized (SPM) - Primitive roads and trails, low number of encounters with other people, subtle and limited management presence, rustic facilities constructed of native materials, high degree of "naturalness" with infrequent evidence of human activity. Most of the Savannah MA is typical of Semi-Primitive Motorized areas.

Semi-Primitive Non-Motorized (SPNM) - Trail access only — no motorized vehicles, low number of encounters with other people, subtle and limited management presence, scarce rustic facilities constructed of native materials, high degree of "naturalness" with infrequent evidence of human activity. The Primitive MA and the non-roaded area northwest of House Mountain in the Savannah MA are typical of Semi-Primitive Non-Motorized areas.

Primitive (P) - Cross-country or primitive trail access, very few encounters with other people, low to non-existent management presence, facilities only for site protection — not for comfort, very high degree of "naturalness". Wildernesses are typically managed for primitive attributes. Some exceptions are Bell Rock and Wildernesses adjacent neighborhoods.

Map 6

Recreation Opportunity Spectrum Objectives

Proposed Actions

National Forest Lands in the Sedona Area
Coconino National Forest • Sedona Ranger District
January, 1997

