NEWSLETTER

14000 FRUITVALE AVENUE ● SARATOGA, CALIFORNIA 95070 ● (408) 867-2200, EXTENSION 376

October 8,1982

News From Around the State

The Association and West Valley College have announced a fall training session on "The Ranger Without Weapons", which will be held November 15-19 on the West Valley College campus in Saratoga. Instructors will be drawn from the expertise of the National Park Service, Albright Training Academy, Grand Canyon, Crater Lake National Park, Yosemite National Park, as well as from local law enforcement staffs of Santa Clara County. The major theme will be on enforcement problems of the park ranger and how these problems might be handled with minimum force. Also included in the course will be an update on law, conflict management, ranger survival, dealing with abnormal behavior, managing stress, planning, the resource managers role in enforcement, and interpretation as a law enforcement device. Costs for the workshop is $50.00 for Association members, and $60 for those that are not. Costs include materials and supplies, per/diem and travel of instructors. Lodging and meals are not included. Camping is available at nearby Sanborn Park. Interested people should contact Tom Smith, course coordinator, West Valley College, 14000 Fruitvale Avenue, Saratoga CA 95070, or call Tom at 408-867-2200. Applications close on November 5th, and the course is open to only the first 40 to apply. Checks should be made out to the Park Management Club, West Valley College, and are due with the application.. There will also be an Association social get-together during the course, for a little wine and cheese. Plan on coming to that, if you cant get your agency to send you to the training. At least you will meet some great people.

News from our sister organization CSPRA

CSPRA's Education and Training Committe has set up a team to develop a "Resource Management Handbook", designed to cover the most common resource problems encountered in the field. They are, at present, researching those in the field to determine what the most common problems are. Any comments that you might have that would give this committe direction should be directed to:

Steve Horvitz
622 High Street
Sebastopool,CA
95472

CSPRA is encouraging all members, including those of PRAC, to actively support Propositions 11nad 13. The Water Conservation Bill and the Bottle Bills.

From the Signpost Editor's Desk

Sorry about the September issue of Signpost. It just didn't get done. Our school started in August, and I worked in Yosemite till after Labor Day. When I returned to the College, I have been snowed. We have changed the format of our program to meet the August start problem, and it is now in an academy format, which means that I am with my students 27 hours/week. Also, our involvement with Sanborn/Skyline County Park has intensified, so time was jsu a problem.

I hope that you all had a good summer. Mine was just super, with Yosemite, because of all the heavy winter snows, was more beautiful than I have ever seen it. Flowers were still blooming in September, and the snow stayed for a long time on the high peaks. Visitation was down in the early summer, but picked up considerably in August. Hasstles were at a minimum, and all said and done, it was a good summer.

I would like for you to look into writing some material for the Signpost and send it to me, or send to Heidi Doyle for the "California Ranger". We just have to get more exposure in the field if we are to survive. Our membership is down from what it normally is, and it worries me. We do so much to try to encourage professionalism in the park ranger profession. Are we giveng up out there?

Slide/Tape Available

A law enforcement slide/tape, has been developed by the Park Management Program at West Valley College in "Conflict manahement in Parks" The program discusses conflict management and the step by step manner in which you approach conflict situations. The program is about 10 minutes in length. At present the program has been shown at Santa Rosa at the Criminal Justice Training Center, and was used this summer at Yosemite for in-service training. Evaluations have been very positive. We are in the process of "cleaning it up"(dubbing some music, etc) and have yet to have any copies made. If you are interested in previewing this slide/tape for use in your agency, please contact West valley College. We have not yet determined what it will costs to duplicate, or to rent. The only thing we are interested in, if we do duplicate, is getting the costs back. It will be none profit.

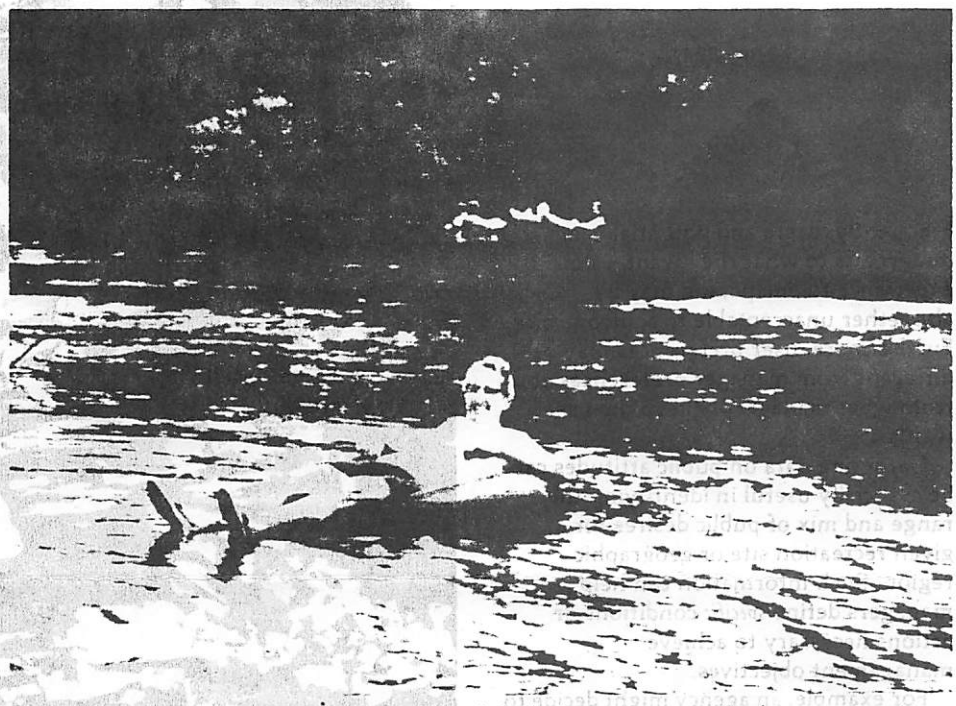
Article of the Month

The following article on Carrying Capacity was taken from the spring, 1979 issue of Trends.

Carrying Capacity

by David W. Lime

Editor's note: The controversial subject of recreational carrying capacity inevitably confronts managers of rivers and trails. The following article offers some practical guidelines for an intelligent approach to this challenge.



In determining carrying capacity, management must state the kinds of recreation opportunities that will be provided. David Lime

Recreation planners and administrators increasingly are being challenged to manage growing numbers of outdoor recreationists. Many areas, both public and private, are being threatened by overuse. For some managers the situation is reaching crisis proportions—the physical environment is being damaged beyond acceptable limits and the people visiting these areas are no longer receiving a quality or enjoyable outdoor experience.

Determining recreation carrying capacity is frequently voiced as a manager's answer to solving the problem of overused recreation areas. Recreation carrying capacity is a complex and troublesome concept that incorporates principles of the social as well as the physical and biological sciences. It is a management concept, a framework or way of thinking about how to plan and manage a particular recreation resource. It is *not* the basis for some magic formula that gives the manager the answer to the continuing question, "How much use is too much?" Deciding how much and what kind of use is acceptable for an area must be based on managerial judgment and experience. The uncertainty of such decisions can be reduced substantially by a consideration of the interrelations of:

1. Management objectives
2. Recreation user attitudes and preferences
3. Impacts of recreation use on natural resources.

In defining carrying capacity, I assume that the primary goal of recreation management is to provide enjoyment and benefits for people. There are certain constraints in doing this, of course—budgetary, administrative, legal, and the capabilities of the physical environment. Thus, managers must determine the *amount and type of use an area can sustain over a specified time period without causing unacceptable change to the physical environment or to the experience of the user.*

Following are some basic principles that relate to the concept of recreation carrying capacity.

1. Carrying capacity can be defined only in light of management objectives for the area in question.

Almost any site can be "hardened" to accommodate the type of recreational opportunity called for by management. Therefore, management objectives should define, as specifically as possible, the kind of recreational opportunity or opportunities the area is to provide.

Two types of management objectives can be differentiated:

1. Broad objectives influenced or controlled by enabling legislation and general administrative policy.
2. Explicit objectives that delineate the desired environmental setting to be sustained and user opportunity or opportunities the area is to produce.

Broad, general objectives can identify:

1. The kinds of activities that might be provided (e.g., camping, picnicking, fishing, sightseeing, hunting).
2. Whether consideration will be given to the protection of natural features.
3. Whether the area should be developed to serve as many people as possible or should be limited to specific kinds of users, such as campers or hikers.

Explicit objectives are more difficult to define because they must identify *the kinds of opportunities* to be provided, and *how* and *where* these opportunities will be managed and sustained. Here, the manager must be concerned with such issues as:

1. Types of use desired.
2. General use intensity or level of solitude desired.
3. Level of development and accessibility of recreation facilities desired.
4. General degree of naturalness desired.

These more explicit objectives also may be influenced by administrative and policy constraints. And, financial, personnel, and technical limitations can inhibit certain objectives as well.

Management objectives should be realistic and attainable. Establishing objectives must be a dynamic process. Objectives must be modified if they are not working and/or if they are no longer relevant. The potential for evaluating whether or not objectives have been achieved is increased when objectives have been quantified and are specific rather than ambiguous.

2. Obtaining attitudes and preferences of recreation users and non-users can help administrators set objectives and suggest needed changes in current policy.

Usually there is more than one solution to a given management problem. Soliciting public opinion allows the manager to review the mix of attitudes that exists regarding a specific issue.

Even subtle changes in the environment of a recreation site can cause many recreationists to become dissatisfied and not return. David Lime

Frequently, users and potential users disagree as to what they want—a quality experience to one person may be altogether unacceptable to someone else. Furthermore, user preferences may be different from manager preferences and from what managers believe the user wants.

Gathering data on public attitudes can be especially useful in identifying the range and mix of public desires for a given recreation site or geographic region. Such information can help managers define *specific* conditions or actions necessary to achieve management objectives.

For example, an agency might decide to provide basic camping facilities in relatively remote locations that are accessible by automobile. Studies of attitudes could provide indices of how visitors might respond to different sizes of campgrounds; the type of setting in which individual camp units are located; spacing between units; the kind and spacing of toilets, water facilities, trails, playground equipment, etc.; design of access roads; and various interpretive materials.

The results of such attitude surveys are not a substitute for management experience and good judgment. Nor do such studies make decisions easier for managers. On the contrary, they may increase the number of alternatives that must be considered.

It also is important to know who may oppose various management actions. Once management decisions are made, especially on controversial issues, it is as important to explain why users' preferences cannot be met as it was to learn what their opinions were.

3. A full range of recreation opportunities within a region are desirable to satisfy the diversity of recreation tastes.

Managers should set objectives and standards for an area that will result in a balanced system or spectrum of recreation opportunities within a region. These should include not only a variety of activities (hiking, swimming, hunting, boating, etc.) but also an assortment of different kinds of opportunities for each activity (auto-access camping, remote area camping, etc.). No one manager or agency need feel obligated to meet the demands of *all* recreation users. Each public agency, for example, could aim at providing one or more *specific* types of recreation opportunities and refer those wanting something different elsewhere.

Obviously, region-wide collaboration among private and public managers is mandatory if a full and appropriate mix of opportunities is to be provided. There does seem to be some progress in meeting this objective among managers of developed campgrounds, for example. Some federal and state agencies indicate they plan to take a major role in providing low-density, simple campground development and are encouraging the private sector to take the lead in providing intensively developed facilities.

4. The character and amount of change permitted to occur to the resource resulting from recreation use must relate directly to management objectives.

The ability of an area's resources to withstand use is an important constraint on carrying capacity. But, knowing what changes occur under specific levels and kinds of use does not by itself tell the manager what is an acceptable amount of change. To define what change shall be permitted, the manager should relate resource change to specified management objectives.

Many "standards of acceptable change" exist that the manager could use. For example, in an elaborate, high-density-use camping area, the manager could employ a variety of techniques to offset resource impacts—such as paving, placing barriers, and planting hardy species. On the other hand, in a campground where the objective is to provide camping in a fairly natural setting, the amount of resource change permitted would be comparatively small. In this case, the manager would probably rely on use restrictions rather than on techniques that would "harden" the site.

5. Many techniques are available to manage an area for its carrying capacity; the techniques selected, however, should depend on the management objectives for the area.

More than a decade ago, U.S. Forest Service researchers developed a framework for discussing ways to manage both natural resources and visitors for carrying capacity. They emphasized that the selection of a technique or combination of techniques

Table 1.—Some measures to control the character and intensity of recreational use to meet desired management objectives.

Type of control	Method	Specific control techniques
Site Management (Emphasis on site design, landscaping, and engineering)	Harden site	Install durable surfaces (native, nonnative, synthetic)
		Irrigate
		Fertilize
		Revegetate
		Convert to more hardy species
		Thin ground cover and overstory
	Channel use	Erect barriers (rocks, logs, posts, fences, guardrails)
		Construct paths, roads, trails, walkways, bridges, etc.
		Landscape (vegetation patterns)
	Develop facilities	Provide access to underused and/or unused areas
		Provide sanitation facilities
		Provide overnight accommodations
		Provide concessionaire facilities
		Provide activity-oriented facilities (camping, picnicking, boating, docks, other platforms, playground equipment, etc.)
		Provide interpretive facilities
Direct Regulation of Use (Emphasis on regulation of behavior; individual choice restricted; high degree of control)	Increase policy enforcement	Impose fines
		Increase surveillance of area
	Zone use	Zone incompatible uses spatially (Hiker only zones, prohibit motor use, etc.)
		Zone uses over time
		Limit camping in some campsites to one night, or some other limit.
	Restrict use intensity	Rotate use (open or close roads, access points, trails, campsites, etc.)
		Require reservations
		Assign campsites and/or travel routes to each camper group in backcountry
		Limit usage via access point
		Limit size of groups, number of horses, vehicles, etc.
		Limit camping to designated campsites only
		Limit length of stay in area (max./min.)
	Restrict activities	Restrict building campfires
		Restrict fishing or hunting
Indirect Regulation of Use (Emphasis on influencing or modifying behavior; individual retains freedom to choose; control less complete, more variation in use possible)	Alter physical facilities	Improve (or not) access roads, trails
		Improve (or not) campsites and other concentrated use areas
		Improve (or not) fish or wildlife populations (stock, allow to die out, etc.)
	Inform users	Advertise specific attributes of the area
		Identify the range of recreation opportunities in surrounding area
		Educate users to basic concepts of ecology
		Advertise underused areas and general patterns of use
	Set eligibility requirements	Charge constant entrance fee
		Charge differential fees by trail, zone, season, etc.
		Require proof of ecological knowledge and recreational activity skills

Understanding public attitudes can help identify the recreation opportunities needed for a given site. David Lime

to control the character and amount of use largely depended on the specific management objectives for the area. Further, in selecting techniques managers should seek to: (1) reduce conflicts among competitive uses, (2) reduce the destructiveness of some users, (3) increase the durability of the physical resource, and (4) provide increased opportunities for visitor enjoyment. These goals can be achieved by the three overlapping types of control measures—site management, direct regulation of use, and indirect regulation of use (see accompanying table).

It is important to recognize that site management techniques can have an immediate and significant effect on the character of the area and the kind of recreational opportunity offered. Hence, drastic or even seemingly subtle changes in the design and type of facilities can alter the character of the site to the point that it may no longer be satisfactory to many current users. This transition often has been observed in small, informal campgrounds that have been closed or have evolved into large, modern, intensively developed camping areas. The resulting process of "creeping campground development" forces out those campers who are seeking solitude and contact with nature.

Many direct and indirect ways are available to the manager to modify or control the recreational behavior of users. Direct controls regulate when visitors can use the area, what area they can use, how long they can stay, and what activities they can engage in. Some of these measures greatly restrict the user's freedom of choice.

Indirect controls, on the other hand, are more subtle and less obtrusive. They do not interfere directly with an individual's freedom of choice. In essence, with indirect controls the manager seeks to modify user behavior without the user being aware of this influence. For instance, reducing trail maintenance in certain areas might convince some hikers to use other trails that are better maintained. As another example, hikers seeking solitude could be informed specifically where use is lightest. In both examples, such actions could help redistribute use and might also help more people increase their enjoyment.

The indirect, more subtle types of controls should be tried and evaluated before the more authoritarian, heavy-handed kinds of action are pressed into service. In particular, do not apply heavy-handed use restrictions because they appear cheapest or administratively convenient. When more regulatory types of measures are necessary, they should be applied as far in advance of the visitor's arrival at the site as possible.

6. Ultimately, the recreation manager is still left with the difficult decision of deciding how much and what kinds of use are acceptable for a given area, and how and where such uses are to be managed and sustained.

For some decisions, the appropriate course of action is rather clear because there are few alternatives. In others, information necessary to make the decision may be meager or conflicting. Further, decisions may be influenced by political, administrative, legal, budgetary, and resource constraints.

Researchers can help managers by finding out what people want from a recreation experience and what they think about alternative actions. Researchers also can help by determining how the resource will be affected by various kinds and levels of use. However, such information only reduces the range of uncertainty associated with a given decision; it does not eliminate the uncertainty. As stressed earlier, there is *no magic formula* for capacity and there is *no magic number* that is *the* capacity for an area.

Without a marriage of managerial judgment and facts, the quest for quality recreation management appears destined for "rougher days." Some warn that without adequate public participation in resource decision making ". . . resource managers will find themselves in the backwash of the environmental movement, serving as mere resource custodians with most decision making in other hands."

David W. Lime, Project Leader, River Recreation Management Research at the North Central Forest Experiment Station of the U.S. Forest Service, in St. Paul, Minnesota, has written extensively on the subject of recreation carrying capacity.

This article has been modified from David W. Lime's paper, "Principles of Recreational Carrying Capacity," in the Southern States Recreation Research Applications Workshop Proceedings, Sept. 16-18, 1975 Asheville, North Carolina.