

WASO SOCIAL SCIENCE PROGRAM

3/19/91 #40

APPLICATION OF SOCIAL CARRYING CAPACITY CONCEPTS

Americans pummel parks
with conflicting goals

Cape Cod conflict

Nature lovers, off-road
vehicle users collide

Glacier to continue
ban on snowmobiling

Humans Lock Horns
At Yellowstone Park

'The Visitor Experience'
What Do We Really Mean?



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

P.O. BOX 37127

WASHINGTON, D.C. 20013-7127



March 19, 1991

Memorandum

To: Park Superintendents

From: Assistant to the Director for Science and Technology

Subject: **APPLICATION OF SOCIAL CARRYING CAPACITY CONCEPTS**

There seems to be considerable ongoing social science research concerning conflicts and problems associated with recreational use of NPS waterways . . . Everglades, Chattahoochee, Delaware Water Gap, Sleeping Bear Dunes, Glen Canyon, etc., etc. Two things strike me about these various studies: The first is the similarity of the water recreation problems encountered at different parks . . . trespass, litter, vandalism, invasion of privacy, noise, alcoholism, rowdiness, unskilled and dangerous powerboating, etc.

The second similarity is the rather uniform nature of the conclusions drawn from the studies. For example:

Conclusion 1: The social problems and social conflicts encountered in park-based water recreation activities stem primarily from the behavioral characteristics of the water recreationists rather than from the number of water recreationists.

Conclusion 2: The conflict initiators (certain of the water recreationists) and those persons adversely impacted by the conflict (other visitors, adjacent property owners, etc.) usually perceive the problem very differently . . . i.e., in terms of its origin, severity, and importance, and also in terms of what actions should be taken to deal with the situation.

Conclusion 3: Since most of the social conflicts encountered on NPS waterways are caused by behavioral problems, we should attempt to resolve these conflicts through indirect actions that serve to modify inappropriate behavior patterns . . . e.g., we should depend on river etiquette education, better communication, more dialogue to tell the aggrieved parties that we are sensitive to their problems, and some increased presence of rangers or other park personnel who convey an image of "friendly caretakers" rather than law enforcement officers. As part of this "behavior modification" solution, it often is concluded also that there is no basis for restricting or limiting numbers of water users, since visitor behavior and not the number of visitors is the cause of the problem.

Well, maybe this all makes sense and maybe it doesn't. Personally, I'm not that convinced yet. Somehow it seems to me that offenders need to be kept off, or taken off, the water in order to protect the rights of other visitors, riparian landowners, and other adversely impacted parties. Behavior modification techniques ultimately may be demonstrated effective in selected visitor social conflict situations, and such techniques certainly warrant testing and evaluation. But it seems to me that very effective arguments also can be advanced for using social carrying capacity

techniques as a control measure. Unfortunately, today everyone seems somehow wary and uneasy about adopting social carrying capacity restrictions, presumably because we lack a uniform or standardized quantitative methodology for determining precise limits on acceptable numbers of recreational users. Well, we don't have very exact or precise ways of assessing the values of wilderness resources, or wildlife, or scenic vistas, but we still do the best we can. I think we should do the same as regards social carrying capacity.

To me, setting social carrying capacity limits remains a very viable management option, provided we can adopt use criteria that are responsive to the particular park-specific social conflict problem at hand. For example, let us accept the argument that water recreation conflicts really are caused by user behavioral problems: If we then look closely at our available park staff resources and determine the maximum visitor use levels at which those park personnel can satisfactorily monitor and control recreational user behavior, we will have a perfectly valid basis for setting a limit on the number of recreational users to be allowed on the water. In other words, we can adopt a numerical social carrying capacity limit that is to be set based on park personnel's ability to satisfactorily monitor and control those recreational visitors who exhibit unacceptable behavior characteristics, using as our basic criterion the requirement that the interests of "innocent" parties are to be adequately protected. This means, for example, that unacceptable behavior is to be tolerated only up to visitor use levels where we still can assure via monitoring and control measures that (a) those visitors who behave in an acceptable fashion will have full opportunity to realize a quality visitor experience and achieve expected levels of visitor satisfaction; and (b) the legitimate rights of riparian landowners against trespass, vandalism, etc., can be protected. We could still use visitor education, better communications, powerboat etiquette training, and other behavior modification techniques to try to reduce behavior problems; if demonstrated effective, these behavior modification initiatives would be reflected in subsequent social carrying capacity limits . . . i. e., with fewer behavior problems, the number of allowable recreation users would be increased up to the new level that could be monitored and controlled by available park staff and still satisfy the criterion that the interests of at-risk or impacted parties be adequately protected.

Final comments. In my judgment, when faced with social conflict problems in parks, we can expect social carrying capacity solutions to be every bit as effective as solutions based on behavior modification techniques. In all likelihood, both approaches will prove useful and complementary. Clearly, we need additional experience with both approaches. I recognize that sometimes there are pressures to increase rather than limit visitor use, and that budgets, staffing levels, and grade levels in parks can be impacted by visitation counts. I recognize also that pride and enthusiasm concerning a park and its recreational opportunities encourage park staff to work to expand visitation and recreational use. Rightly so, but sometimes the mix of conditions, circumstances and legitimate competing objectives lead us to conclude that limits on use are necessary. The concept of social carrying capacity is a valid approach for dealing with social problems. I hope, therefore, that we do not dismiss this technique, either on the grounds that we have limited experience in dealing with

social carrying capacity questions, or alternately for the equally unacceptable reason that sociologists somehow may feel professionally compromised if they deal with social conflict issues using regulatory or management-oriented techniques rather than by relying exclusively on behavior modification techniques and other more conventional tools of the sociology trade.

A handwritten signature in black ink, appearing to read "Dick Briceland". The signature is stylized with a large initial "D" and a circular flourish around the "B".

Richard H. Briceland