



## Yosemite User Capacity Symposium

# SUMMARY REPORT

SEPTEMBER 2008



Photo: Jim Bacon



**Shortly after the conclusion of the symposium the event organizers received a thank you letter. The following is an excerpt from this un-solicited correspondence:**

*“From the beginning, with the tone set by park staff and the moderator, I saw something new take shape: Instead of murmuring to each other in private, I watched people engage each other in public. The choices that you made – inviting the public into the discussion between theorists and the managers who must put theory to work; allowing us to engage each other in small-group discussion; and explicitly stating that this was to be a convivial gathering and a chance to mutually learn – allowed everyone to see that theory and practice are in the hands of capable, yet fallible, human beings striving to do their best with what they have.*

*In a venue where posturing could have overwhelmed discussion, you managed to build trust, and invited us to learn and to watch people learn from each other. I relished the pauses as people considered questions and statements during the sessions: these indicated that participants were not simply waiting to state their positions, but actually listening to each other.*

*I saw this openness and engagement carry into the small-group interactions. By not defining the groups ahead of time, you allowed unusual pairings to happen and real discussions to emerge: politicians and citizens talked about how to allow public access while taking into account the rights of nature; land managers speculated aloud how to deal with the complexity of the biophysical and the social aspects of parks; volunteers related what they see while working in Yosemite.*

*In a world where finger-pointing and hardening of position often become the foundation of public discussion, the symposium offered a completely different approach: It brought people together without posturing or pretense. It was real. There’s no better way to build trust and hope.”*



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## Executive Summary

The National Park Service hosted a **user capacity symposium (symposium)** in Yosemite National Park on February 6-8, 2008, at the Yosemite Lodge in Yosemite Valley. More than 130 people from around the country participated in the event representing various interest groups including over 50 local stakeholders and members of the general public—a testament to the interest this topic generates.

User capacity generally refers to the types and extent of visitor and other public use that may be accommodated in parks and protected areas given their management goals and applicable laws and policies. It also addresses the positive and negative impacts associated with this use. The purpose of the symposium was to further the understanding of and explore approaches to addressing user capacity in national parks and other public lands including Yosemite National Park by engaging public land managers, researchers, elected officials, tribes, and the general public in an open dialogue.

The symposium was facilitated by Mary Orton from The Mary Orton Company, LLC, an environmental and public policy mediation and facilitation firm. During the course of the symposium, experts presented diverse viewpoints about user capacity as well as real-world, on-the-ground case studies about how user capacity is currently being addressed across a variety of public lands. Question and answer sessions allowed stakeholders to ask difficult questions in a public venue and express their personal opinions about the challenges of user capacity management and in particular, how these challenges affect Yosemite. Additionally, roundtable discussions allowed for members of the public and other stakeholders to sit around the same table with experts and land managers to engage in more focused discussions. The final day involved field trips in Yosemite Valley led by park staff to discuss further user capacity issues as they affect Yosemite National Park specifically.

Feedback has been very positive. In fact, several participating experts called the symposium a “watershed event” in the study of user capacity. Park staff are hopeful that this symposium will prove to be a key step in an on-going, open dialogue about user capacity and related issues affecting Yosemite and other public lands. This summary report and other materials from the symposium are available on the Yosemite National Park website at:

[www.nps.gov/yose/parkmgmt/symposium.htm](http://www.nps.gov/yose/parkmgmt/symposium.htm).



## I. Purpose of the Symposium

Addressing user capacity, or carrying capacity as it is also known, is a perennial issue in protected area planning and management. Though there are several definitions of the term *user capacity*, in the context of national park planning and management it generally refers to the type and extent of visitor use an area can sustain while maintaining acceptable resource and visitor experience conditions that fulfill the purpose of the park. To simplify, user capacity has to do with what people do in a park, where they do it, and what impact their activities have on park resources and the experience of other visitors.

Recently, this subject has garnered particular attention in Yosemite National Park where the Merced Wild and Scenic River Comprehensive Management Plan has been challenged in court, due in part to how user capacity was addressed. As a result, questions have been raised as to the most appropriate and legally sufficient method for addressing user capacity in a park or other public lands.

In an effort to remain on the cutting edge of addressing user capacity and partially in response to this litigation, Yosemite National Park organized a symposium to bring together a range of individuals interested and versed in this topic.

The following purpose and objectives were established for the symposium:

**The purpose** of the symposium is to further the understanding of and explore approaches to addressing user capacity in national parks and other public lands including Yosemite National Park, by engaging public land managers, researchers, elected officials, tribes, and the general public in an open dialogue.

**The objectives of the symposium are to:**

- Understand why planning and managing user capacity is important.
- Build a common understanding and language for the range of user capacity approaches.
- Explore current perspectives on and approaches to addressing user capacity.
- Identify and understand the effectiveness and consequences of different management strategies addressing user capacity.
- Explore the application and implications of different user capacity strategies in Yosemite.

This summary report outlines in more detail what took place at the symposium and provides a summary of results. Supporting materials such as the final agenda, participant list, evaluation forms, and notes are provided in an appendix. For further information please see the park's website at: [www.nps.gov/yose/parkmgmt/symposium.htm](http://www.nps.gov/yose/parkmgmt/symposium.htm).



## II. What Happened?

### A. Overview

The symposium was held over the course of three days, Wednesday thru Friday, February 6-8, 2008. The final agenda for the symposium can be found in Appendix A. The first two days consisted of facilitated meetings, roundtable, and panel discussions. The third day involved field trips led by Yosemite National Park staff to four locations in Yosemite Valley. Locations visited and topics discussed in the field visits included: Yosemite Falls – site design; Cook’s Meadow – restoration efforts; Happy Isles – trails and attraction sites; and Curry Village – visitor services.

More than 130 people from across the country participated in the symposium. A final list of participants can be found in Appendix B. Participants included representatives from various federal agencies such as the US Forest Service, Federal Highway Administration, Bureau of Land Management, and National Park Service. State and local governmental agencies were represented as well including California State Parks and El Dorado County Parks. Non-profit organizations included the Yosemite Association, Friends of Yosemite Valley, Mariposans for the Environment and Responsible Government, the Sierra Club, the Access Fund, American Whitewater, and others. American Indian Tribes, political representatives and many members of the general public were also in attendance.



Invited speakers field questions from the audience. NPS Photo.



## B. Symposium Planning and Facilitation

Planning for the symposium was conducted by an interdisciplinary group comprised of Yosemite National Park staff, a representative from the National Park Service's Denver Service Center, and a contracted, neutral facilitator.

The symposium was facilitated by Mary Orton of the Mary Orton Company, an environmental and public policy mediation and facilitation firm. Having a third-party facilitator allowed Yosemite National Park staff to participate fully in and learn from the symposium.



Facilitator Mary Orton addresses the audience. NPS Photo

Development of the agenda involved a deliberate and careful process. Mary Orton conducted interviews with key stakeholders and invited professional experts in order to understand their interests and expectations for the symposium. Feedback was solicited on the symposium objectives, process, and logistics. This information was used to develop an agenda that addressed the interests and concerns of a broad, yet vested audience.



## C. Presentations

### 1. Expert Presentations

Many professional experts were invited to give formal presentations about addressing user capacity in national parks and other public lands. Presentations were 15 minutes in length. Each presenter was also asked to provide a one-page summary of their talk. Both powerpoint presentations and one-page summaries can be found on the park's website listed at the beginning of this report.

Professional experts were chosen based on their experience and credentials associated with addressing user capacity in parks and other public lands. As shown below, each presenter has a wealth of experience in this area both in academic circles as well as in the field. Finally, presenters were chosen representing a diversity of approaches to addressing user capacity in order to promote dialogue and learning.

The following section provides a short biography and summary written and provided by each presenter.



#### **ROBERT MANNING, PH.D.**

Robert Manning is a Professor in the Rubenstein School of Environment and Natural Resources at the University of Vermont where he teaches environmental history and philosophy, and park and wilderness management. He is Director of the University's Park Studies Laboratory and conducts a program of research for the U.S. National Park Service and other agencies. He is the author of *Studies in Outdoor Recreation* (Oregon State University Press) and *Parks and Carrying Capacity: Commons without Tragedy*

(Island Press).

Dr. Manning started off the symposium by giving a talk entitled, "**History and Context of User Capacity Planning and Management.**" The following is an excerpt from Dr. Manning's one-page summary,

The issue of carrying capacity has a long history and is a manifestation of what may be the most fundamental issue in all of environmental management: how much can we use the environment without ruining it? Aldo Leopold referred to this as "the oldest task in human history: to live on a piece of land without spoiling it." The National Park Service Organic Act of 1916 may be the most powerful and eloquent statement of the inherent tension between use and preservation. Carrying capacity and related issues such as "conservation", "sustained yield", "common property resources", and "sustainability" have been applied to wide ranging issues and areas, including forestry, grazing, wildlife and fisheries, parks and wilderness, and even human population growth. Scientifically based application of carrying capacity to parks and related areas began in the 1960s and has resulted in conceptual frameworks and methodological approaches that are now being applied to analyze and manage carrying capacity in national parks and elsewhere.



## GLENN HAAS, PH.D.

Dr. Glenn E. Haas is a professor emeritus in the College of Natural Resources at Colorado State University; a principal in the land use planning firm of Aukerman, Haas and Associates; and the President of the National Association of Recreation Resource Planners. He has served on the national boards of the National Park Conservation Association, the National Society for Park Resources, and as the head of the CSU Department of Natural Resource Recreation and Tourism for more than 10 years. His credentials on the matter of visitor capacity include: (a) working in the national headquarters of the US Forest Service where he authored the 1981 policy on Limits of Acceptable Change, (b) teaching graduate level courses in NEPA-compliant planning and decision making, (c) chairing the 1998 National Conference of Recreation and Resource Capacity, (d) chairing the Department of the Interior's Federal Interagency Task Force on Visitor Capacity on Public Lands and Waters, (e) serving as a planning team member on numerous state and federal resource management plans, and (f) serving as an expert counsel in five visitor capacity-related legal cases.

Dr. Haas initiated the series of presentations related to alternative approaches to user capacity with a talk entitled, “**Visitor Capacity on Public Lands and Waters.**” An excerpt from his one-page summary follows,

**A Visitor Capacity is a Number:** A whole number or numeric range. Capacity is the supply, or prescribed number, of appropriate visitor opportunities that will be accommodated in an area at a particular time.

### **A Visitor Capacity Serves Multiple Purposes**

- Demand/supply analysis
- Predictability for businesses and communities
- Helps to contrast management alternatives (choices)
- Trigger for resources or action
- Protect integrity of park-dependent experiences
- Risk management tool
- Enables timed-ticketing, reservation, and other visitation systems



## DAVID N. COLE, PH.D.

David N. Cole is a research geographer with the Aldo Leopold Wilderness Research Institute, an interagency research institution that is part of the Forest Service's Rocky Mountain Research Station is located in Missoula, MT. He has degrees in geography from the University of California, Berkeley (B.A.) and the University of Oregon (Ph.D.). He has studied the ecological impacts of recreation use in wilderness since the early 1970s. Recently he has worked on effective ways to restore areas from visitor use impacts and to develop an understanding of the nature of human experience in



wilderness, as a means of assisting managers make good decisions about how to balance protecting experiences with providing recreational access and managing visitors. In his free time he likes to pursue outdoor activities, particularly hiking and boating.

Dr. Cole's presentation was entitled, "**A Standards-based Approach to Addressing User Capacity.**" The following is an excerpt from his one-page summary:

A standards-based approach is one in which decisions about appropriate management, including estimates of user capacity, are based on standards, specific and measurable statements about desired future conditions or outcomes. In such an approach, user capacity is addressed by implementing a suite of management actions that ensure standards are not violated—that desired conditions are attained. If a numerical estimate of capacity is desired, it is the maximum amount of use that can be sustained without violating standards, given a defined suite of management actions.



**ANTHONY PRATO, PH.D.**

Tony Prato is H.A. Cowden Professor of Ecological Economics, Co-Director of the Center for Agricultural, Resource and Environmental Systems, and Director of the Upper and Middle Mississippi Valley Cooperative Ecosystems Studies Unit at the University of Missouri-Columbia. He has 38 years of research and teaching experience in agricultural and natural resource economics and management. Tony has published over 200 journal articles, reports, and book chapters; and four books. His research interests include integrated modeling of coupled human-natural systems, assessing ecological economic impacts of climate and land use changes, adaptive management, benefits and costs of converting cropland to wetlands, conservation and management of national parks and protected areas, application of geospatial technologies (GIS and remote sensing), multiple attribute decision-making, watershed and water resources management, environmental impacts of agricultural production, and spatial decision support systems. In 2006, Tony received the Distinguished Researcher Award from the College of Agriculture, Food and Natural Resources at the University of Missouri-Columbia. He received a Ph.D. degree in Agricultural Economics and an MA degree in Applied Statistics from the University of California-Berkeley, an MS in Agricultural Economics from Purdue University, and a BS with honors in Agriculture from the University of Connecticut.

Dr. Prato's talk was entitled, "**Multiple Attribute Scoring Test to Evaluate Ecological and User Capacities for National Parks.**" An excerpt from Dr. Prato's summary,

The Multiple Atttribute Scoring Test for Capacity (MASTEC) method assesses the current state of an ecosystem with respect to ecological and user capacities when there is not an exact relationship between those capacities and measured resource and user conditions (i.e., managers are uncertain about this relationship). The method integrates elements of three carrying capacity methods: Limits of Acceptable Change; Visitor Impact Management; and the Visitor Experience and Resource Protection. The MASTEC method quantitatively determines the most likely state of an ecosystem with respect to ecological and user capacities for a given set of measured resource and user conditions in a way that minimizes decision errors that can be committed in inferring the state of an ecosystem from measured resource and user conditions. In cases where the ecosystem is not



compliant with ecological and user capacities, the method allows the resource manager to identify the management action having the greatest likelihood of bringing the ecosystem into compliance.



#### AL SHACKLETT

Al Shacklett is a leading expert in the field of facilities and operations planning for the leisure industry. He has over twenty years of ongoing experience in direct project analysis and management of business and engineering personnel on a wide variety of projects related to the planning and operation of leisure venues. Al has been a pioneer in developing the state of the art in planning methodologies for the leisure industry, and applying these in a practical way. He has contributed to the development and improvement of many theme parks, national parks, fairs and expositions, aquariums, zoos, science centers, visitor centers, sports arenas and transportation systems. Al's professional career began in 1976 with the Walt Disney Company. At Disney, Al helped improve the efficiency and productivity of the Disney theme parks and transportation facilities. Al was integrally involved with the development of many of the major new Disney projects around the world including Euro Disneyland and the Disneyland Resort in California. In 1993, Al formed Operations Research Consulting Associates (ORCA) in order to provide the unique services he helped pioneer at Disney to the leisure industry. During the fourteen years since founding ORCA, Al has supported dozens of high-visibility clients on a wide variety of projects to enable these clients to develop effective public spaces and facilities. Al's educational background includes majors in Mathematics, Operations Research, and Industrial Engineering. He received a Masters of Science degree from the University of Florida in 1978.



#### BOB LAMB

Bob Lamb, of the ORCA Consulting Group, has over thirty years of experience planning, opening, and successfully operating leisure venues. During his long career with The Walt Disney Company, Bob was instrumental in the growth and successful operation of many Disney world-renowned Parks and Resorts. When completing his career at Disney, Bob assumed the role of Vice President, Parks and Resorts Operations and Expansion. In this role, he provided worldwide support to projects and operational endeavors at both new and existing Disney resorts. Since leaving Disney, Bob has contributed his expertise to projects at the London Aquarium, Monticello, Library of Congress, Lincoln Library, Miami Zoo, U.S. Capitol Visitor Center and Statue of Liberty.

Al Shacklett and Bob Lamb from ORCA Consulting, Inc. concluded the series of presentations on alternative approaches to user capacity with a talk entitled, “**Carrying Capacity/Operations Assessment and Implementation Approaches.**” The following is an excerpt from their summary,

As part of the process of planning and designing the public spaces for National Parks and Monuments, an important, but sometimes underestimated, planning element is the need to ensure that visitor capacity and operational planning issues are adequately incorporated into the overall



planning process. The primary objective of visitor capacity and operational planning is to ensure that the public spaces and facilities of a project being planned are effectively sized to meet the projected attendance levels on high-attendance days and that the physical needs of the visitors are met to ensure a comfortable visitation experience. Consequences of inadequate planning include: long wait lines and excessive crowding at the key attractions and resources, imbalanced distribution of visitors within a monument or park, visitor dissatisfaction arising from these problems, and suboptimal allocation of financial resources to the major project components.

## 2. Practitioner Case Studies

The second day began with a series of presentations focusing on case studies of how user capacity has been addressed in a selection of protected areas around the country. These presenters included Linda Jalbert from Grand Canyon National Park, Garry Oye and Brian Spitek from the Inyo National Forest, and Dr. Bo Shelby from Oregon State University and Dr. Doug Whittaker of Confluence Research and Consulting discussing user capacity issues on a number of Wild and Scenic Rivers.



**LINDA JALBERT**

Linda Jalbert has worked at Grand Canyon National Park for 18 years on river and backcountry management issues. The early years involved months of fieldwork including river trips as long as 30 days collecting data and doing campsite rehabilitation work. In the last 10 years however, Linda has served as the lead planner for the Colorado River Management Plan. Linda also serves as the park Wilderness Coordinator, a challenging role that involves working with park staff, researchers, agencies and partners.

Linda Jalbert's presentation was entitled, "**Case Study: The Colorado River through Grand Canyon National Park.**" An excerpt from her one-page summary follows,

The presentation will provide an overview of how the NPS packaged a range of alternatives limited by the physical conditions and distribution of camping beaches in the 278-mile river corridor. Other factors determining the appropriate use levels are based on 1) the number, types, and condition of natural and cultural resources, and 2) desired social conditions including opportunities for solitary or social experiences. The presentation will include detail on how variables such as daily launch limits, group size, trip length, and user-day limits are managed to protect park resources and achieve visitor experience goals.

The 2006 Colorado River Management Plan sets use limits and implementation strategies that represent a significant change from previous management plans. The plan allows for an overall increase in use by establishing daily launch limits and distributing use throughout the year. The plan also reduces group size, increases number of noncommercial trips and provides for a six-month no motors period.

Grand Canyon is often times looked upon as setting the pace or example for how other parks or river management agencies prepare and implement river management plans. For better or worse, richer or poorer, there are lessons to learn.



## GARRY OYE

At the time of the symposium Garry was the District Ranger for the White Mountain & Mount Whitney Ranger Districts, Inyo National Forest, Pacific Southwest Region. Since that time, however, he has accepted the position of Chief for Wilderness Stewardship and Recreation Management for the National Park Service. For the past 30 years, he has been blessed with an incredible public lands management career. His positions have all involved wilderness, backcountry and recreation. In 1978 he landed his dream job as a GS-3 Wilderness Guard at Elk Summit, on the edge of the Selway-Bitterroot Wilderness. Wilderness has been a central part of his life since those early days. From 1995 to 2002 he served as Group Leader for Wilderness, Rivers, Trails and Recreation Fee Programs in California. He coordinated management activities on 4.3 million acres in 54 Wildernesses, 13 Wild & Scenic Rivers, and 5 special management areas. Since 2002 he has been the District Ranger on the Inyo National Forest with management responsibility for the John Muir, Golden Trout, South Sierra, Inyo Mountains, and Boundary Peak Wildernesses. The Forest where he works is home to the Ancient Bristlecone Pine Forest, the oldest living trees.



## BRIAN SPITEK

Brian is a Wilderness Ranger in the Mt. Whitney District of the Inyo National Forest. He started his public lands career as a volunteer on the Inyo National Forest in 1989. From there he went to Mt. St. Helens where he served as a backcountry & climbing ranger. He also spent some time as an Interpreter at Mt. St. Helens and Wilderness Ranger in the Strawberry Mountains Wilderness / Malheur National Forest. His greatest claim to fame has been the successful implementation of a pack-out waste program on Mt. Whitney, along with the removal of two dysfunctional toilets. His thoughts on ‘Visitors Helping to Be Part of the Solution’: if you ask them to help, they will do it.

Garry and Brian presented the, “**Mount Whitney Case Study.**” An excerpt follows,

In 1873 John Muir climbed 14,494’ Mount Whitney. Over 100 years later, on the east side the Whitney Trail cuts through a place we now call the John Muir Wilderness. On the west side access is gained through the Sequoia and Kings Canyon National Park Wilderness. Each year 19,000 people attempt to climb Mt. Whitney from the east, primarily via the Mt. Whitney Trail. An additional 4,000 people climb from the west on the John Muir Trail, and then descend the Mt. Whitney Trail. For the last 30 years, access to this area has been managed with an evolving limited entry quota. Initially access was only limited from Whitney Portal. Today there are many access points that deliver visitors to Mount Whitney. Some visitors begin their journeys to the summit over 200 miles away, in Yosemite National Park. Others may travel the High Sierra Trail, from Sequoia & Kings Canyon National Parks, and finish their trip on the Mt. Whitney Trail. There are



numerous other trailheads on the Inyo National Forest from which backpackers begin trips that end at Mount Whitney.



## **BO SHELBY, PH.D.**

Bo Shelby, PhD. has over 30 years of research experience studying natural resource use and management, and has published hundreds of reports and journal articles. He is nationally recognized as a leading researcher in recreation and in-stream flows for recreation, and has been involved in over 30 recreation-flow studies that have collected data from over 45 rivers. He is

also well known for his work on crowding and carrying capacity issues, co-authoring a 1986 text on the topic. Dr. Shelby is a professor of Forest Management at Oregon State University. He has a PhD. in sociology from the University of Colorado.



## **DOUG WHITTAKER, PH.D.**

Doug Whittaker, PhD. has over 20 years of experience working on natural resource issues as an outdoor recreation planner with the Bureau of Land Management and National Park Service, or as a researcher/consultant for a variety of state and federal agencies. Dr. Whittaker has published dozens of reports and

journal articles, and has made presentations at symposia and conferences across the country. About half of his work focuses on in-stream flows for recreation; the remainder has examined crowding, conflict, and carrying capacity issues in recreation settings, or attitudes toward urban wildlife and its management. Dr. Whittaker has a PhD. in human dimensions of natural resources from Colorado State University.

Dr. Shelby and Dr. Whittaker concluded the series of case study presentations with, “**Visitor Capacity on Rivers.**” An excerpt from their one-page summary,

The presentation begins with a brief review of capacity concepts and then provides a summary of rivers with capacity/allocation systems. The summary focuses on twenty rivers with the longest histories of capacities, but also includes roughly 100 other rivers with “partial” (limits on commercial uses only) or “potential” (use has not exceeded defined capacities) use limits. The presentation then reviews basic steps required to establish capacities. This includes examples of recreation opportunities, use measures, use-impact relationships, indicators, standards, and management actions used in different settings. Examples include Wild and Scenic Rivers which are required to specify capacities to protect “outstandingly remarkable” values (WSRA, Section 3(d)(1)). The presentation briefly discusses this mandate, how it has been interpreted by river managers, and the ways scientific information can be used in capacity decisions.



### 3. Practitioner Case Studies 2

After the presentations and panel discussion with practitioners described above, participants provided feedback that they would like to hear more case studies from additional practitioners addressing these issues in other parks and protected areas. Therefore, a change in the original agenda was made to include a second series of case study presentations. Because of their expertise and on-the-ground knowledge of user capacity issues, several professionals in attendance were asked to provide a brief summary of the work they conduct along with some lessons learned. The following provides a brief background on each speaker and a short summary of what they spoke about.



#### CHARLIE JACOBI

Charlie Jacobi is a natural resource specialist at Acadia National Park whose focus is visitor use issues. He has worked for the NPS since 1982. His responsibilities include identifying and facilitating needed visitor impact and social science research, monitoring visitor use and behaviors, mitigating visitor impacts, Leave-No-Trace education, and contributing to a variety of park planning efforts. He has worked on the development of park management plans for Isle au Haut, the carriage roads, rock climbing, hiking trails, and commercial services.

A summary from Charlie's talk follows:

From 1994 to 1997, Acadia National Park applied the Visitor Experience Resource Protection process to the park carriage road system to address visitor experience issues raised in visitor complaints. Resource impacts were not a concern and were not addressed. Shared recreation use of the carriage roads, a diversity of experiences based on visitor use levels, and a high quality visitor use experience were established as the major carriage road management goals.

Three years of social science research and visitor use estimation provided a substantial amount of information on which to base the selection of indicators and the setting of standards for crowding and four problem behaviors. Two zones, peak and nonpeak, were established based on existing levels and patterns of use. These zones were defined by location, time of day, and time of year. The same *indicators of quality* were used for both zones, but different *standards of quality* were set.

A simulation model tied together three equivalent expressions of the crowding standard:

1. The number of persons seen per viewscape in each zone;
2. The daily carriage road visitor carrying capacity (3,000 visitors per day);
3. Eighty percent of visitors will have a high quality experience 90% of the summer season days.

Behavior standards were also established for each zone based on the number of occurrences of each behavior.



Monitoring crowding and visitor behaviors over the past 11 years suggests that no violations of standards have occurred for either crowding or behaviors, although standards have been approached for some behaviors.

As staff who were involved in the planning process retire or move on, and new priorities arise in park management, it remains to be seen if the commitment to manage carriage roads more intensively (taking potentially controversial actions), will persist should violations of standards occur.



### **JEFFREY L. MARION, PH.D.**

Jeff Marion is a Research Biologist with the U.S. Geological Survey, with a duty-station at Virginia Tech, Blacksburg, VA, where he serves as an Adjunct Professor with the Natural Resource Recreation program. Dr. Marion's research focus is in Recreation Ecology, including research and monitoring to evaluate environmental impacts resulting from recreational activity in protected natural areas. He has conducted research and consulted with managers at several dozen protected areas relating to the assessment and management of visitor impacts from hiking, camping, horseback riding, river recreation, and climbing. Recent studies have also evaluated the efficacy of educational and site management actions designed to minimize recreation impacts, the preferences and acceptability of such actions to visitors, and how such actions affect visitor experiences. He is a founding member of the *Leave-No-Trace* (LNT) Board of Directors and Educational Review Committee, and serves on the Appalachian Trail Conservancy Stewardship Council and American Hiking Society Board of Directors. He is a former Scoutmaster and current leader of a co-educational Venture Crew, member of the Boy Scouts of America *Leave-No-Trace* Task Force, and recipient of the BSA's Hornaday Gold Medal award for Natural Resource Conservation.

The following is a summary from Jeff's talk:

Jeff Marion discussed a hypothetical situation related to a case study at the Delaware Water Gap. The situation involved a number of dead trees that had been found. Apparently, the trees were dying because people were cutting green limbs for firewood. Jeff's point was that education is an important first tool to apply to address these tree cutting concerns. The next tool, if education was still not effective, might be to use regulations against the use of axes and saws. His point was that limiting the number of campers doesn't necessarily mean that damage won't occur to the trees because it may be a small group of people doing the cutting. The focus should be on desired conditions and addressing visitor use concerns more broadly, not only the numbers of visitors.



## **KRISTINA RYLANDS**

Kristina works in Yosemite National Park as a Wild and Scenic River Planner and Project Manger. Since 1999, she has worked in wild and scenic river planning, following the twists and turns of Yosemite's controversial Merced River Plan. Currently, she presides over the planning effort to create a comprehensive management plan for the Tuolumne Wild and Scenic River and a site plan for Tuolumne Meadows in Yosemite. Kristina is also president of the River Management Society's Pacific Chapter and serves on the executive committee of the Upper Merced River Watershed Council. When not in the happy company of Yosemite's rivers, you will find her at home in Mariposa with her husband and three kids.

A summary of Kristina's talk follows:

Kristina Rylands discussed the planning process for the ongoing Tuolumne Wild & Scenic River Plan in Yosemite National Park. She described the process and successes they have achieved. In particular, she noted that public involvement has proven to be a key component of the planning effort. She also discussed how data collection and continual learning has been integral to the process. She concluded by saying that the park has been applying lessons learned throughout the planning process. In particular, the park has learned that the public wants to be more a part of the process, and engaging them often has been one of the cornerstones of the Tuolumne River Plan.



## **KERRI CAHILL, PH.D.**

Kerri Cahill is a visitor use specialist and planner for the National Park Service's Denver Service Center. Her primary responsibilities include visitor use management planning for general management and implementation plans. She has also participated in the review and revision of NPS planning guidelines related to the topics of visitor use management and user capacity decision-making. Kerri advises on research projects, and has authored several publications, in these topic areas. Recently, she has accepted a detail in the NPS Washington planning office to lead a working group addressing user capacity and related visitor use planning and management issues. Kerri has degrees in natural resource recreation management (Virginia Tech, Ph.D.), urban and regional planning, specializing in natural resource planning (Florida State University, M.S.P.) and environmental policy (University of Miami, B.A.).

A summary of Kerri's talk:

Kerri described her work at a number of National Park units around the country addressing user capacity. She emphasized the importance of developing desired resource and visitor experience conditions to guide capacity decision making. Desired conditions reflect people's values and are a key input to the planning process. She recognized the importance of establishing indicators and



standards to monitor the effectiveness of achieving desired conditions. She noted, however, that the discussion about indicators, standards and monitoring is very technical and that she has been engaged in several efforts to help develop these around the agency.



## **KEITH BROWN**

Keith Brown grew up on the East Coast, where his family ran an equestrian riding stable, and then a marina. Keith received his B.S. at the University of Vermont in Natural Resource Economics. After college, Keith worked as a seasonal for 11 years for government, non-profit and for-profit recreation/natural resource organizations across five western states. In 2001 Keith completed this Masters of Science degree at Colorado State University in Recreation Planning, writing his thesis on the topic of visitor capacities. Through the SCEP program, Keith obtained his first full-time position with the Bureau of Land Management (BLM) in Prineville, Oregon as a Recreation Planner. In 2008 Keith moved to the Tahoe National Forest in Nevada City, CA. Keith is currently serving as the Program Manager for Special Uses, and the Forest Recreation Planner.

A summary of Keith's talk:

During his presentation, Keith touched on 3 visitor capacity topics. The first was an internet-based permit system and common pool allocation for BLM's Lower Deschutes River (LDR). Through the [boaterpass.com](http://boaterpass.com) website, LDR permits are managed and administered in real-time. Here boaters can check permit availability by day; select the dates of their river trip, then purchase and print a permit on their home computer. Common pool allocation requires private and commercial boaters to compete for permits on an equal basis. No pre-season allocation of permits is provided to commercial operators. The first of its kind, the LDR common pool allocation is still being refined to better address issues including cancellations, internet connectivity, and other technological issues. Finally, Keith touched on the concept of acting proactively when implementing capacity programs. Keith provided a number of reasons why a proactive approach was preferred by recreation managers, and a couple of real-world examples from his thesis.



## D. Round-table Discussions

A series of roundtable discussion sessions took place to generate meaningful conversation around some important issues related to user capacity. During each roundtable session participants were asked to break into small groups of six and were seated at small tables, similar to a café or restaurant setting. A question was then posed and the group was asked to conduct an open discussion related to it.

One person from each table was designated as the “host.” Their responsibility was to record what was said on a flip-chart. After several minutes of discussion participants were asked to conclude their conversations and move to a new table, while the table host remained. A brief synopsis of what the previous group discussed was provided by the table host to kick-off the second round of discussions on the same question with the new group.

Four rounds of discussions were conducted during the Symposium generating a wealth of ideas and stimulating dialogue.



Symposium participants engaged in roundtable discussions. NPS Photo.

The following section presents a summary of the major themes and representative examples from each round of discussions. A complete listing of the verbatim flip-chart notes generated during these discussions can be found in Appendix C.



## **Round 1: What do you consider to be the major issues and challenges of user capacity on public lands?**

### Theme 1: Balancing Values / Making Compromises

- *“Balance resource protection & visitor experience.”*
- *“How do you manage increasing visitor use and providing access to the public while protecting resources?”*
- *“Determine the values in the goals and balancing the goals.”*

### Theme 2: Financial, Political and Other Constraints

- *“Training / funding / resources shortfalls that prevent or limit land managers ability to manage natural / cultural resources.”*
- *“Staff and money in adequate amounts are a key necessity.”*
- *“VERP difficult to implement on large, complex systems.”*

### Theme 3: Resource Impact Concerns

- *“How to establish user capacity in a fragile, low use, remote, costly environment and to be proactive in anticipating user degradation...”*
- *“Avoiding / limiting degradation of ecosystems.”*
- *“Sustainability of park resources – whole picture.”*

### Theme 4: Communications

- *“Being able to communicate the concepts to the greatest number of stakeholders, given the complexity of the concepts.”*
- *“Common language and definitions.”*
- *“How do you define user?”*

### Theme 5: Changing Demographics and Increasing Use

- *“Maintain or increase access to a broad spectrum of visitors – equal access.”*
- *“Visitor numbers; all want their piece.”*
- *“Increased population in close proximity to sensitive areas.”*

### Theme 6: Building Trust / Consensus

- *“Fear on the public side of the implementation of carrying capacity decisions or planning process.”*
- *“Consensus and trust of public.”*
- *“Public trust – many don’t trust the agency.”*



## **Round 2: Given these issues and others, what do you want to learn about user capacity and establishing user capacity management systems at this symposium?**

### Theme 1: Learn About Different Methodologies / Techniques

- *“Tools to determine capacity and desired condition.”*
- *“New technology: how can it be used as an advantage?”*
- *“How to select and prioritize indicators.”*

### Theme 2: How to Communicate and Educate User Capacity Issues

- *“Communicating the issues to the public.”*
- *“Define / understand what ‘capacity’ means – perhaps beyond a quantitative definition.”*
- *“Develop common agreement about terminology and user capacity approaches.”*

### Theme 3: How to Overcome Conflict and Build Consensus

- *“How do we create trust between entities?”*
- *“How to education, build consensus.”*
- *“How to avoid future lawsuits.”*

### Theme 4: Case Studies of What Works and Where

- *“Where is carrying capacity being done and how is it working?”*
- *“What is working, what is not?”*
- *“What types of ‘user capacity’ management techniques work where? What are the benefits and drawbacks?”*

### Theme 5: Identify Data and Information Gaps / Research Needs

- *“What type of data gaps exist that defer decision making?”*
- *“How can limits be set when lacking critical info concerning indicators?”*
- *“How do you determine baseline.”*



**Rounds 3 and 4 (Same Question): Regardless of the approach chosen, how can land management agencies better implement and institutionalize user capacity systems, given issues such as money, time, political will, complexity, hard decisions, litigation, and other concerns?**

#### Theme 1: Public Involvement and Outreach

- *“Public needs to be involved in the entire process in how decisions are to be made so the public can be more effective in their participation.”*
- *“Meet stakeholders even before needed...keep public engaged and informed before during and after planning process – confront issues right away.”*
- *“Build open, honest, direct relationships from the beginning with all involved.”*

#### Theme 2: Building a Common Language / Communication and Education

- *“Develop the common language.”*
- *“Focus as much on how to communicate these complex concepts.”*
- *“Institutionalize learning, document what is learning.”*

#### Theme 3: Coordination and Collaboration

- *“Coordinate with other agencies.”*
- *“Integration between agencies – more science / state-of-the-art.”*
- *“Create networks so that when things need to be announced you are talking to your friends.”*

#### Theme 4: Improve Staffing and Management Capability

- *“Hire appropriate recreation / visitor use staff.”*
- *“Consider visitor management a professional job series with a career ladder.”*
- *“Make better use of technology to get information out there.”*

#### Theme 5: Pursue Effective Implementation

- *“Integrate and communicate about monitoring activities to better utilize resources.”*
- *“Use advisory committee to help implement plan / management decisions.”*
- *“Create a fluid approach that allows for testing and dialogue on what works.”*

#### Theme 6: Science and Monitoring

- *“In planning, monitoring needs to be prioritized – especially for funding.”*
- *“Legislation ineffective without monitoring (sustainable program).”*
- *“Funding for monitoring should be prioritized and formalized.”*



## E. Field Visit

A half-day field visit was organized for the third and final day of the symposium. The purpose of the field visits was to get participants out in the park to discuss the implications of the previous days' conversations. Visits focused on visitor use planning and management issues currently affecting Yosemite National Park. NPS field staff facilitated each group's discussion. During the symposium participants were given the opportunity to sign up for one of four groups to visit and discuss the following sites and topics:

- 1) Yosemite Falls – site design
- 2) Cook's Meadow – restoration efforts
- 3) Happy Isles – trails and attraction sites
- 4) Curry Village – visitor services

The field visit concluded with a report-out and discussion session in the Valley Visitor Center Auditorium with all participants so that all would benefit from the discussion held at each of the four sites. Each group was asked to provide their thoughts and impressions on their particular field visit. In general, participants identified the complexities involved in attempting to maintain resource conditions while providing visitor use opportunities. Many recognized the importance of careful planning and management in creating a balance between these goals.



**Park Restoration Ecologist, Sue Beatty, leads a group in a discussion of visitor use management issues affecting Cooks Meadow in Yosemite Valley. NPS Photo.**



## F. Symposium Evaluation

An evaluation form was distributed to all symposium participants (Appendix D). Thirty-seven evaluation forms were completed and returned. The following tables provide a summary of responses from these evaluations.

The first question asked participants to evaluate how well the NPS accomplished the objectives of the symposium (Table 1). Satisfaction was measured on a scale of 5 (Very Satisfied) to 1 (Very Unsatisfied). The first four objectives were rated at least satisfied or very satisfied, while the last objective received the lowest average score of 3.4. Objective 1, *Understand why planning and managing user capacity is important*, rated the highest at 4.8 on average.

**Table 1. Symposium Evaluation Form Results – Symposium Objectives**

Symposium Objectives					
1) We would like to know how well you feel we accomplished our objectives for this symposium. Please rate your level of satisfaction with addressing each objective below (check one box)					
SYMPOSIUM OBJECTIVES	(5) = Very Satisfied	(4) = Satisfied	(3) = Neither Satisfied or Unsatisfied	(2) = Unsatisfied	(1) = Very Unsatisfied
Understand why planning and managing user capacity is important.	<b>4.8 avg.</b>				
Build a common understanding and language for the range of user capacity approaches.	<b>4.2 avg.</b>				
Explore current perspectives on and approaches to addressing user capacity.	<b>4.5 avg.</b>				
Identify and understand the effectiveness and consequences of different management strategies addressing user capacity.	<b>4.0 avg.</b>				
Explore the application and implications of different user capacity strategies in Yosemite.	<b>3.4 avg.</b>				

We also asked for feedback on participants’ satisfaction with various logistical aspects of the symposium (Table 2). Overall, participants were generally satisfied with all logistical aspects of the symposium. In particular, people were very satisfied with the facilitator Mary Orton, the participant packets, the agenda, and the venue.



Table 2. Symposium Evaluation Form Results – Symposium Logistics

Symposium Logistics					
2) We would like your feedback on other aspects of the Symposium. Please rate your level of satisfaction with the following items below (check one box)					
ASPECTS OF THE SYMPOSIUM	(5) = Very Satisfied	(4) = Satisfied	(3) = Neither Satisfied or Unsatisfied	(2) = Unsatisfied	(1) = Very Unsatisfied
Symposium agenda	4.6 avg.				
Meeting venue	4.6 avg.				
Participant packets	4.7 avg.				
Information and correspondence prior to the symposium	3.9 avg.				
Facilitator (Mary Orton)	4.8 avg.				
Presentations	4.5 avg.				
Roundtable conversations	3.8 avg.				
Panel discussions with presenters	4.5 avg.				
Field Visit	4.1 avg.				

Participants were asked to explain their responses further: *For those items you marked as satisfied or unsatisfied above, please explain.* Most respondents used this question to explain the reasons for being unsatisfied and those included reasons such as:

- The information being technical, complicated, full of jargon, and as a result difficult to understand.
- Lack of common language and understanding of terminology.
- They would have liked to see a more detailed agenda sooner.
- Round table discussion topics were not specific enough.

In addition, participants were asked: *What would you like to see as the next steps in the discussion on user capacity?* Responses to this question include things like:

- Share the information and results of the symposium via a variety of media.
- Conduct more focused discussion on specific topics related to user capacity.
- Establish a common language and set of principles for user capacity.

Finally, participants were given the opportunity to include any additional comments. A wide range of responses were given from expressing appreciation for the event to more specific comments regarding aspects of addressing user capacity.

The symposium planning team felt it was also important to receive additional feedback from stakeholders and invited guests. They were sent an email separately and asked the following:

- *What is one thing you liked about the Symposium?*
- *What is one thing you would change to make it better?*
- *What would you like to see as the next steps in the discussion on user capacity?*

Responses to the first two questions mirrored the thoughts articulated by the participants in the symposium evaluations. Generally, stakeholders and presenters liked the facilitator, the



organization and logistical aspects of the symposium, and the opportunity to engage in an open dialogue with a diverse group of people interested in the topic of user capacity. Having more focused questions for the roundtable discussions or using another method were suggested changes.

Answers to the third and last question on next steps suggested a desire to conduct additional meetings with smaller, more focused groups to discuss in more detail some of the particular issues related to user capacity. The focus in these groups would be the “how-to” of addressing user capacity. Other follow-up ideas included publication, communication, and learning opportunities (see section III-B of this report).



### III. Conclusions

#### A. Perspectives

The symposium planning committee met following the event to debrief and discuss their impressions of the event. The following perspectives were commonly shared:

- *Building Relationships and Trust:* The symposium was successful in bringing different groups together and engaging them in open dialogue, building trust and respect along the way.
- *An On-going Dialogue:* Many recognized the breadth and importance of the dialogue that took place at the symposium. It is important to continue dialogue at various levels regarding this topic.
- *Differing Viewpoints:* The symposium gave many key individuals immersed in user capacity discussions the opportunity to further explain and articulate their positions. This seems to have been effective. Many participants commented that they had a better understanding of the views held by key individuals involved in user capacity issues.
- *Common Ground:* Several participants noted that there seemed to be some commonalities among the alternative approaches to user capacity that deserved some more attention.
- *Diversity and Outreach:* A point made during the discussion was that we need to engage more diverse populations in user capacity discussions. Though the symposium was widely attended by differing groups, there was the recognition that those in attendance did not necessarily reflect the full breadth of user groups and interested parties.
- *Fact Patterns:* Several individuals felt that we did not have the opportunity to delve deeper into user capacity discussions to identify fact patterns of what works and where. This may be a topic for further consideration and follow-up.



## B. Moving Forward

A number of ideas were generated through the course of the symposium as to what may be done to continue to move the state-of-the-art for addressing user capacity in parks and public lands forward. The following are a series of potential action items that may inform future efforts:

- Build relationships early in planning and management processes and maintain them throughout.
- Public involvement and outreach are a key part of addressing user capacity issues.
- Communication and terminology are integral parts of addressing user capacity.
- There appears to be some commonality among the various approaches to user capacity presented at the symposium and these may be further articulated as fundamental principles to addressing capacity.
- Address diverse audiences, demographic trends, and their implications for user capacity.
- Identify fact patterns and effective tools for addressing user capacity in specific settings.
- Establish desired resource and visitor experience conditions need to be established to inform user capacity decisions.
- Build institutional foundation and organization in land management agencies for addressing user capacity and related visitor use planning and management issues.
- There needs to be an understanding of the trade-offs or compromises that are inherent in making user capacity decisions.
- Well informed management action, though it may prove to be the wrong course of action in the future, may be better than inaction.
- Continue to address user capacity and related issues through practical research and science programs.



## IV. Appendices

### A. Final Agenda

Wednesday, February 6, 2008	
9:00a (:20) Cliff Room	<p><b>1. Welcome</b> Michael J. Tollefson, Superintendent Yosemite National Park</p>
9:20a (:20) Cliff Room	<p><b>2. Opening Remarks</b> Linda Dahl, Chief of Planning, Yosemite National Park</p> <p>Dr. Niki Nicholas, Chief of Resources Management and Science, Yosemite National Park</p>
9:40a (:20) Cliff Room	<p><b>3. Symposium Overview</b> Mary Orton, Facilitator, The Mary Orton Company, LLC</p>
10:00a (:45) Cliff Room	<p><b>4. Presentation Series I: BACKGROUND AND INTRODUCTION</b> History and Context of User Capacity: Dr. Bob Manning, University of Vermont</p>
10:45a (:15) Cliff Room	<p><b>5. Introduction to Roundtable Conversations</b> Mary Orton</p>
11:00a (:15)	<p><b>B R E A K</b> Move to the Mountain Room</p>
11:15a (:45) Mountain Room	<p><b>6. Roundtable Conversations A</b> <b>Round #1:</b> What do you consider the major issues and challenges of user capacity on public lands?</p> <p><b>Round #2:</b> Given these issues or others, what do you want to learn about user capacity and establishing user capacity management systems at this symposium?</p>
12:00 n (1:00)	<p><b>LUNCH AND GALLERY WALK</b> Lunch will be on your own. In order not to overwhelm the cafeteria, we request that half the group go to lunch while the other half spend 15 minutes or so on a "Gallery Walk:" looking at the wall where the answers to Rounds 1 and 2 are posted. The first group to go to lunch will have a Gallery Walk after eating.</p>



## Wednesday, February 6, 2008

1:00p (1:00) Cliff Room	<p><b>7. Presentation Series II: APPROACHES TO USER CAPACITY</b> Approach 1: Dr. Glenn Haas, Colorado State University / Aukerman, Haas and Associates</p> <p>Approach 2: Dr. David Cole, Aldo Leopold Wilderness Research Institute</p>
2:00p (:15)	<b>B R E A K</b>
2:15p (1:00) Cliff Room	<p><b>8. Presentation Series II: APPROACHES TO USER CAPACITY (continued)</b> Approach 3: Dr. Tony Prato, University of Missouri – Columbia</p> <p>Approach 4: Al Shacklett and Bob Lamb, ORCA Consulting Inc.</p>
3:15p (1:30) Cliff Room	<p><b>9. Panel Q&amp;A</b> Series II Presenters will answer questions.</p>
4:45p (:15) Cliff Room	<p><b>10. Wrap-up for the day</b> Jim Bacon, Outdoor Recreation Planner, Yosemite National Park</p> <p>Mary Orton, Facilitator</p>

## Thursday, February 7, 2008

9:00a (:15) Cliff Room	<p><b>1. Welcome</b> Mary Orton, Facilitator, The Mary Orton Company, LLC</p>
9:15a (1:30) Cliff Room	<p><b>2. CASE STUDIES I:</b> Grand Canyon National Park: Linda Jalbert, Planner/Wilderness Coordinator</p> <p>Inyo National Forest: Garry Oye, District Ranger, and Brian Spitek, Wilderness Ranger</p> <p>Wild and Scenic Rivers: Dr. Bo Shelby, Oregon State University, and Dr. Doug Whittaker, Confluence Research and Consulting</p>
10:45a (:15)	<b>B R E A K</b>
11:00a (1:00) Cliff Room	<p><b>3. Panel Q&amp;A</b> Case Studies I Presenters will answer questions.</p>



## Thursday, February 7, 2008

12:00p (1:00)	<b>LUNCH AND GALLERY WALK</b> Lunch will be on your own. In order not to overwhelm the cafeteria, we request that half the group go to lunch while the other half spend 15 minutes or so on a “Gallery Walk:” looking at the wall where the answers to previous roundtable conversations are posted. The first group to go to lunch will have a Gallery Walk after eating.
1:00p (1:00) Cliff Room	<b>4. CASE STUDIES II:</b> Keith Brown, Bureau of Land Management, Oregon Kristina Rylands, Yosemite National Park Charlie Jacobi, Acadia National Park Jeff Marion, Virginia Tech University Kerri Cahill, National Park Service, Denver Service Center
2:00p (:15)	<b>B R E A K</b> Please fill out a symposium evaluation!
2:15p (:45) Mountain Room	<b>5. Roundtable Conversations C</b> The questions for these final rounds of conversations will be determined from the ideas generated during Round #2 on the first day.
3:00p (1:30) Cliff Room	<b>6. Open Forum</b> Presenters will answer questions from participants, and all participants are invited to discuss ideas stimulated by the symposium.
4:30p (:30) Cliff Room	<b>7. Wrap-up and Adjourn</b> Bret Meldrum, Social Scientist, Yosemite National Park Superintendent Michael J. Tollefson

## Friday, February 8, 2008

9:00a (:15) Visitor Center	<b>Introduction to Field Visit</b> Welcome, discuss activities and logistics for the day.
9:15a (2:45)	<b>ACTIVITY 1: Field Visit</b>  <b>Group 1:</b> Yosemite Falls – Site Design and Rehabilitation with Laura Kirn and Jen Nersesian  <b>Group 2:</b> Cooks Meadow – Restoration efforts with Judi Weaser, Sue Beatty, and Pam Meierding



	<p><b>Group 3:</b> Curry Village – Visitor Services with Joe Meyer and Dave Humphrey</p> <p><b>Group 4:</b> Vernal Falls / Happy Isles – Trails and Attractions with Bret Meldrum and Jim Bacon</p>
12:00p (:30) Visitor Center Auditorium	<p><b>ACTIVITY 2: Visitor Center</b> All Groups</p> <p>Report-out on Field Visit</p> <p>Closing remarks, Kevin Cann, Deputy Superintendent</p>



## B. List of Attendees

Last Name	First Name	Affiliation
Acree	Lisa	
Adams	Woody	
Asquith	Bob	
Bacon	Jim	NPS - YOSE
Ballenger	Liz	NPS - YOSE
Beatty	Sue	NPS - YOSE
Beesley	David	
Bignardi	Paul	CITY OF SAN FRANCISCO - TRANSPORTATION PLANNER
Blaney	Carol	NPS - YOSE
Bowes	Stephen	NPS - OAKLAND
Breitler	Alex	STOCKTON RECORD - REPORTER
Brochini	Tony	NPS - YOSE
Brohm	Jim	
Brohm	Helen	
Browder	Hal	
Brown	Bart	
Brown	Keith	BLM - OR
Buckley	John	CENTRAL SIERRA ENVIRONMENTAL RESOURCE CENTER
Buczko	Chris	
Buhler	Monica	NPS - YOSE
Bulmer	Susan	VERMONT STATE PARKS
Butler	Mark	NPS - YOSE
Cahill	Kerri	NPS - DSC
Cann	Kevin	NPS - YOSE
Carter	Dan	YOSEMITE SIERRA VISITORS BUREAU
Clough	Helen	US FISH AND WILDLIFE - ALASKA
Croal	Dianne	NPS - PWR SEATTLE
Cuvelier	Charles	NPS - YOSE
Dahl	Linda	NPS - YOSE
Deeken	David	
Deeken	Virginia	
DeGroot	Henrietta	
Delaney	Bill	NPS - YOSE
Devine	Pete	YOSEMITE ASSOCIATION
Dulen	Deanna	NPS - DEPO
Efird	Carol	THE LOUIS BERGER GROUP, INC. - OAKHURST
Eisher	Margaret	
Eissler	Margaret	
Fauth	Gregg	NPS - SEKI
Fincher	Mark	NPS - YOSE
Fisher	Joy	
Flaherty	John	



Fong	Randy	
Fontaine	Joe	SIERRA CLUB
Foster	Mike	NPS - YOSE
Geis	Chris	NPS - YOSE
Grayden	Jim	KENNEDY-JENKS
Greenwood	David	BLM - BRICEBURG
Haas	Glenn	COLORADO STATE UNIV.
Hancock	Jeff	
Harder	Ralph	
Harder	Isolde	
Hartman	Vickie	NPS - YOSE
Haukness	Lorelei	FOREST SERVICE - TONGASS NATIONAL FOREST
Heikkinen	Ruth	NPS - OMAHA
Hernandez	John	CENTRAL CALIFORNIA HISPANIC CHAMBER OF COMMERCE
Hoeflich	Jack	NPS - YOSE
Hogan	Richard	
Hoover	Vicky	SIERRA CLUB
Husbands	Mark	NPS - YOSE
Jacobi	Charlie	NPS - ACAD
Jalbert	Linda	NPS - GRCA
Jansen	Larry	
Kennec	Renea	NPS - YOSE
Kerr	Bridget	
King	Cynthia	TUOLUMNE RIVER TRUST
Knipper	Carol	
Lamb	Bob	ORCA CONSULTING
Law	Susan	FEDERAL HIGHWAY ADMINISTRATION
Lawson	Steve	VIRGINIA TECH UNIVERSITY
Lee	Vickie	
Leung	Yu-Fai	NORTH CAROLINA STATE UNIV.
Liu	Calvin	NPS - YOSE
Mackie	Ron	
Magee-Bauer	Vikki	MONO COUNTY SUPERVISOR
Manning	Bob	UNIVERSITY OF VERMONT
Marion	Jeff	VIGINIA TECH UNIVERSITY
Martin	Julie	FOREST SERVICE - STANISLAUS NATIONAL FOREST
Martzen	Paul	AMERICAN WHITEWATER
Maxwell	Craig	
Mayer	Elexis	NPS - YOSE
McBride	Megan	DOI - OMB
McKenzie	Len	
McMichael	Viki	
Meierding	Pam	NPS - YOSE
Meldrum	Bret	NPS - YOSE
Meyer	Joe	NPS - YOSE
Modin	John	PUBLIC



Munson	Mary	NPCA
Mutlow	Moose	YOSEMITE INSTITUTE
Nersesian	Jen	NPS - YOSE
Newburger	Todd	
Nicholas	Niki	NPS - YOSE
Nielson	Marty	NPS - YOSE
Nitriion	Sara	
Norman	David	PROVOST AND PRITCHARD ENGINEERING - CA
O'Donnell-Brown	Candy	
Olson	Julia	WILD EARTH ADVOCATES - FRIENDS OF YOSEMITE VALLEY
Orton	Mary	
Oye	Garry	FOREST SERVICE - INYO NF
Parson	Georgia	NPS - YOSE
Parson	Henk	NPS - YOSE
Percival	Kevin	NPS - WASO TRANSPORTATION
Peters	Clay	
Petersen	Stan	
Poulsen	Brian	ACCESS FUND
Prato	Tony	UNIV. OF MISSOURI
Reed	Jennifer	
Regier	Kim	
Robinson	Jessica	NORTH CAROLINA STATE UNIVERSITY
Rosenfeld	Gary	
Rucker-Triplett	Noah	EL DORADO COUNTY PARKS - CA
Ryan	Ted	
Rylands	Kristina	NPS - YOSE
Sarazin	Gerald	SIERRA SUN TIMES
Savidge	Mike	NPS - GOGA
Shackelton	Steve	
Shacklett	Al	ORCA CONSULTING
Shelby	Bo	OREGON STATE UNIVIVERSITY
Sherpa	Wangdown	
Siegenthaler	David	NPS - OAKLAND
Spitek	Brian	
Stark	Josh	NPCA - STOCKTON
Stetzel	Corrie	YOSEMITE ASSOCIATION
Strayer	Leslie	
Stromberg	Gretchen	NPS - YOSE
Sturtevant	Jon	
Sutherlin	Bette	
Sutherlin	Mark	
Tasker	Jeannie	
Traina	Dena	KENNEDY-JENKS
Tucker	Teri	NPS - YOSE
Ueno	Karin	



Vance	Mandy	YOSEMITE INSTITUTE
Warren	Greg	NPS - YOSE
Weaser	Judi	NPS - YOSE
Wells	Marcella	
Williams	Barbara	SIERRA CLUB
Woiderski	Brittany	NPS - YOSE



## C. Verbatim Flip-chart Notes from Roundtable Discussions

### **Round 1: What do you consider the major issues and challenges of user capacity on public lands?**

- Maintain or Improve park conditions
- Maintain or Increase access to a broad spectrum of visitors- equal access
- Adaptive park planning for visitor needs and experiences
- Avoid/minimize lawsuits
- Keep public engaged in all stages
- Indicators: what is being impacted?
- Balance resource protection & visitor experience
- Think broadly
- Communicating a complex issue to a broad base
- How to execute?
- User awareness of their impacts
- Wildland urban interface
- High Expectations from public
- Increases in use
- Conflicts due to lack of awareness between visitors and visitor activities.
- Knowledge and past behavior of park visitors – and how it impacts ;park resources
- Increased population in close proximity to sensitive areas
- Wildland/urban interface pressures
- Sustainability – resiliency: Merced River impacts
- Monitoring resources for effective monitoring
- Sustainability of park resources – whole picture
- How to establish user capacity in a fragile, low use, remote, costly environment and to be proactive in anticipating user degradation – using models? Prevention
- Economic interests/use limitation – short view vs. long view values
- Data vs. mgmt. judgments
- Manager decision conflict – pres. and use.
- Monitoring trail impacts
- Social trails
- Wildlife
- Informal trails
- Rec/climbing issues (& educ.)
- Changing values (Gen X, Y, Z) & public lands & resources
- How do we reconcile short-term and long-term perspectives – Values
- Challenge to make it a value-laden discussion, which is important, while still being for the common good (future generations)
- Designated wilderness areas (the other 95%) – legislation reflects the evolving values
- Determining the values in the goals and balancing the goals.
- Being able to communicate the concepts to the greatest number of stakeholders, given the complexity of the concepts
- Making direct linkages between ecological conditions & amounts of visitor use
- Balancing, flexibility (in mgmt.) with accountability, especially to public, etc.
- Creating a process that leads land managers to establish use limits that err strongly on the side of the environment (e.g. defining mgmt. actions ahead of time)
- Figure out at what point use/crowding is excessive for social values
- Visitor experience could be one value, but there are others
- At what point does the number of people affect the resource?
- Short use term effects of \$ condition



- Court's/Judges don't understand science of NPS approaches to capacity
- Increase use; Boomers, etc.
- How can management implement practices for all issues on capacity
- How to integrate experiential and ecological aspects of user capacity? Social – qualitative vs. ecological – quantitative
- Who decides what experience should be - the public or the land managers?
- How to effectively work with the public?
- Lack of scientific knowledge re: visitor use and impact relationship
- How to protect freedom, wilderness experience while carefully managing visitor use? Parks are not Disneyland.
- How to manage at “wild” end? Not lose this opportunity
- Breath/depth of cap. Issue – community, infrastructure, integrating
- Complexity on Y-axis, how make this “manageable” and implement
- Take process, especially VERP, to practical and affordable level
- Organizational capacity to implement c. cap. Planning
- “Complexification” exceeds capacity to manage
- Legal uncertainty
- How to we “do” capacities?
- How boil down to achievable mgt. actions
- “Reality check” on how to implement
- Successful use studies to “show how do it”
- Better “resource sharing” about what people are doing
- Commitment of power structure to capacities
- Do res.mgrs. Think they have to establish capacities?
- Ad hoc process rather than a “major component” of res. mgmt.
- Lack of “clarity” about “evaluative” dimension – what to provide, how to define it
- VERP difficult to implement without adequate budget
- MRP, TRP difficult to address without budget
- Need to develop objectives, then implement
- VERP difficult to implement on large, complex systems
- Difficult to determine appropriate levels of use, or closure of areas impacted
- Need site management, education
- How to avoid slippery slope of where adaptive management can take you?
- How do you manage increasing visitor use and providing access to the public while protecting resources?
- How do you get enough resources to monitor impact?
- How do you define user?
- How to you allow for restoration while providing access? Where is the balance?
- What do you use as a baseline for user capacity?
- How do we determine the desired conditions?
- Intangible, how do we account for it?
- Making management decisions that are good for the resources and the entire spectrum of users is a challenge
- Public access has to be protected. Who has the right to limit public access?
- What about non-human rights & natural environment
- Lack of guiding regulatory language (i.e. no definition of “capacity” in regulations
- How do we take the next step after research? How do we implement and keep everyone happy?
- How do you capture the “sense of place” or feelings places elicit? (Qualitative values vs. quantitative)
- How do you do this for a varied population and diversity of values?
- Getting from conditions to numbers
- Dealing with congestion during peak weekends and also vehicles
- Using technology as a tool for managing user capacity
- Training/funding/resources shortfalls that prevent or limit land managers ability to manage natural/cultural resources



- Challenge between increased public visitor expectations and diminishing operation budgets
- Public buy-in to understand and accept carrying capacity concepts is more difficult than in the past, but is critical
- How do you manage potential diverse user capacities within YNP and the NPS?
- How do you manage conflict regarding adjacent zones?
- How do you ensure the management plan is updated and adaptive?
- How is desired condition determined?
- How do you educate public regarding desired behaviors?
- Trampling
- Pollution
- Dual mission of NPS – balancing resource protection with user access
- Managing for perception – social overlay on top of biophysical
- What is the appropriate level of development?
- Desired conditions need a way to be determined
- Limited visitor choices by rules, education, parking limits.
- How do you say no to people when the park is full?
- How do you predict day-tripper numbers?
- Systematic holistic approach to overflow within park or within reg.)
- How do you manage dispersal (self-selected)?
- Multiple agencies – same resource. How to implement? Single cohesive mgmt. plan – HOW? Need to work together – how managing for different values?
- Porous border without limited access points. Access is unlimited
- Visitation to be more representative of surrounding community? Educated Visitors! Ethics? Agency mission/values?
- In this context, if wilderness/primitive equals decreased use, how do these balance?
- Does visitation have to go down?
- What about behavior?
- Conflicting perspectives, differing uses
- Entitlement notation by people who have prior experience
- Too many of “those” people
- Finite resources with spanning demand
- Common language and definitions
- Rebellion
- Resource impacts
- Avoiding/limiting degradation of ecosystems
- How to integrate or balance biophysical carrying capacity with social experiences?
- How to balance access with both biophysical and experiential issues?
- Just Do It – what are barriers? Decision makers don’t want to make hard choices
- Focus first on Healthy environment and set objectives. Then limit/manage use to achieve
- Access vs. impact
- What are the values and how do they become incorporated into the process?
- How do you make judgment on someone else’s value?
- Relevance/values of public lands are changing
- Less room to stay in parks; costs are increasing – may be prohibitive/exclusive place you need money or connections to get in.
- In the other 95%, are there other places that could be used as an outlet for the pressure on heavily used places?
- Values are, and will, continue to evolve
- Other outlets for experiencing ecological values are emerging (i.e., internet)
- What role to city or county parks play in preserving public lands?
- Social and economic conflicts
- Broad spectrum visitation economic impact and Boomer population
- Get to arbitration more quickly to avoid lawsuits



- Carbon footprint; design parks to promote what we want to protect
- Sustainable design to accommodate more visitors (i.e., light on the land)
- Business and capacity – easy to come in vs. limits vs. economy
- Business and Capacity – access/ gateways
- Resource protection vs. concessionaire driven
- Hardin – “mutual coercion” quote. Capacity= distributing impacts elsewhere? Consider impacts elsewhere
- Visitor numbers; all want their piece
- Social tolerance is not equal to resource tolerance
- National Forests as overflow areas
- Staff and costs of research/data collection to assess impacts (i.e., E.C. Meadow)
- What do visitors expect?
- Conflict between social factors and economic factors
- Impacts of your experience on my experience (i.e. noise)
- Differences between capacities at parks vs. other areas. Activities that can occur outside the park (i.e. mountain bikes)
- Day use reservations
- Fear on public side of the implementation of carrying capacity decisions or planning processes.
- How will carrying capacities be implemented? Education/addressing public concerns.
- Creative problem solving on the part of managers.
- Integration of capacities/monitoring of various planning scales
- Funding/accountability
- Finding holistic approaches to visitor management and honing the needed skills
- At some point, one must say no
- Lack of direction re. user capacity
- Perception
- Broad spectrum/diversity at visitors with sometimes competing values/needs, etc.
- Objective vs. subjective
- Rights/needs of people vs. nature
- Tolerance of a wide range at people
- Tolerance of natural needs
- Balance increasing demand to access with other values
- What constitutes informed judgment?
- What is the relationship between informed judgment and the point of political feasibility of implementation?
- The process is dynamic and includes uncertainty
- Notion of changing social & cultural values and how we view science
- Need to develop something that everyone can understand and includes all the critical issues
- Articulating use-impact relationship (in absence of studies- do managers know?)
- No one trusts a “hard process” – excuse for doing or not doing something
- Equity issue – allocation of use within a capacity
- Need better use-impact relationship info
- Evaluative – do people know this?
- Comes down to values. Multiple caps-depends on what you want to provide
- Multiple inputs-very complex, not one thing
- Public trust- many don’t trust the agency
- How to manage at “wild” end?- not lose their opportunity
- Keep a positive perspective in this debate; focus on desired conditions not limits
- What is the tipping point on the gradient of accessibility and resource protection
- Money
- Litigation
- Interpretation of enabling legislation in planning process and implementation
- Acceptable impacts



- Who is the audience?
- Prescriptions
- Quantitative, qualitative role of cultural diversity
- Adaptive management – time intervals
- Political realities
- Users-Baby Boomers more frequent visitors
- Economic drivers-ability to make expensive trips
- Land managers have difficulty making tough decisions
- Feelings of entitlements/rights
- Rights vs. Responsibilities
- Expectation
- Cultural & Social norms/ self-enforcement
- Loudest voice vs. silent majority
- How to enforce a user limit?
- Control of general access (entrance) vs. activities, destinations, & user specifics. How to control multiple destinations and activities when there are limited entry points accessing multiple sites?
- Quantify visitor capacity
- Define parameters (what info gather)
- Keep management adaptive (seasonal, over years)
- Accountability
- Consensus and trust of public
- Allow management to manage
- Political support
- Working with gateway communities
- “Holistic” approach – balance between indicators and the whole

**Round 2: Given these issues and others, what do you want to learn about user capacity and establishing user capacity management systems at this symposium?**

- Learn from conversations
- Is there a way...#s are not the way; monitoring/VERP with more indicators are the way. Ecosystem model.
- What is the future of carrying capacity
- How can transportation play a role in the art of management (graph: impact vs management actions)?
- Amount of use, type of use, nature of management: alchemy of indicators, appropriateness of management actions. We want to learn more from managers, the “art” of management in decision-making (defensible)
- Want to learn how do we better communicate different zones to others and how that impacts their expectations
- More about zoning and consistency across unit: compliance, hardening, education
- More about the role of education in helping set visitors expectations pre-visit and doing compliance
- Yes.
- Quantitative limits vs other ways of managing for capacity?: education, information, behavioral changes, manipulate access, provide alternatives
- Determine demand, needs and alternatives
- Disperse need
- Biophysical and social complexity makes a standard system of determining capacity
- Tools to determine capacity and desired condition
- How to involve the visitor in affecting capacity, LNT, etc...
- When are going to do it?! Need to see progress – make up for lost time
- Where do you start?
- What is best way to establish capacity given so many different variables?
- How to build public support and political support
- Where is carrying capacity being done and how is it working?
- Where are we enforcing carrying capacity?



- Does there have to be a “magic number”?
- What are the levels activities by fed agency? (progress)
- Reconciling number with concept of adaptive management (making it work for the park...is it viable?)
- History of adaptive management. How is this the “be all and end all?” (slippery slope)
- How can we be proactive vs reactive?
- How can we reconcile the variations in carrying capacity approaches?
- How do we avoid political intervention?
- How to apply these methods to natural systems?
- How to articulate complex/subtle method in legal context?
- What are methodologies for zoning?
- How to overcome the “complexity” issue?
- Added issues: VERP increases in difficulty as scale increasing
- \$ cost of science; studies get funding, monitoring does not!
- Reluctance of managers to act with less than 100% of info
- Key focus on big picture
- Why can’t decisions be based on resource limitations as opposed to social/users?
- Why can’t the NPS make a capacity/user decision on visitation to the VALLEY (as opposed to backcountry...)
- Balance resource protection and economic gateway community stability? International travelers!
- Staff and money in adequate amounts are a key necessity
- The user capacity question needs to expand beyond park boundaries to include neighbor communities/area...the park boundary is not an arbitrary line for visitors...just as it is not a line for watersheds or wildlife
- The “model” for input to participate in the process to assess “user capacity” is uneven and challenging
- Balance between management actions to address “real time” issues and long-term user capacity concepts—how nimble can the staff respond on short notice?
- Where/how does the funding come from to perform the necessary monitoring?
- Understand policy and background to allow for planning (facility planning)for the long term
- User capacity as a concept needs to go beyond natural resources—to integrate all elements (infrastructure, access to facilities, neighbor communities, many more) to achieve capacity goals
- Develop some advance rules and disseminate them widely so taxpayers/visitors know the drill
- Equity for all visitors who happen to arrive simultaneously
- Develop ways to interpret a feedback loop
- Recognize that many people make their own choice to stay away in high season
- Human beings are adaptable—some come in on the east, leave west
- Consider addressing problems in a priority sequence, i.e.: gridlock first
- Understand varying range of perspectives on LAC/carrying capacity
- Coming to agreement when there are ambiguous desired outcomes i.e. Is desired condition John Muir timeframe, or 10 years ago, or now, or none?
- How do you achieve these conditions?
- Whose perspective is being left out?
- Should the infrastructure be said to manage visitation?
- Chicken or egg? Do we take out infrastructure to manage visitors?
- New technology: how can it be used as an advantage?
- How transportation can be used as a tool to support carrying capacities
- Languages—how can I help?
- Academic, manager, stakeholder—each has own way to talk. How do we communicate with all 3 groups? Poor communicate=hard to talk
- How do we create trust between entities?
- Visitation vs resource protection...doesn’t resource protection trump all?
- YOSE—history of lots of visitation. Is it realistic? How do we actually reduce visitation to reduce use? Ex: a capacity for YOSE was developed years ago—why hasn’t it been implemented?
- Different cultures use the park in different ways
- How to find resources to monitor standards



- To better understand perspectives on user capacity
- How can limits be set when lacking critical info concerning indicators?
- Are there new technologies that can assist and provide tools for visitor demand management?
- Communicating the issues to the public
- Expanding use areas to alleviate crowding
- Addressing trampling and pollution issues
- Addressing funding constraints in user capacity management programs
- Making strong ties to resource impacts and use levels
- Balancing holistic systems with smaller science-based connections, larger context with science, art, and management issues
- Keeping the bigger picture
- The Symposium
- What is working? What is not?
- New cutting-edge ideas: brainstorming
- Balancing quality and quantity components of data collection
- What is measurable, what is not?
- Adaptive management protocols—concern more vehicles than park can handle
- Need a system for parking permits
- How do you enforce limits on micro-sites within the park? How do you manage specific areas?
- Social equity element factored into a reservation system—some advance reservation and some face-to-face for 1<sup>st</sup> come, 1<sup>st</sup> serve
- How do we meet higher expectations with diminishing budgets?
- How are implementation methods evolving?
- How will we make transparency more user-friendly for consumers?
- Learning other than VERP
- Desire to move faster than VERP
- Discussion on modernized planning process—video conference, less travel, who's doing what
- How different implementation methods/strategies affect different user groups in different ways?
- How do different demographics and cost figure into the opportunity spectrum for future visitation?
- How do we work with gateway communities to manage/influence user capacity?
- What does user capacity mean to/for the public?
- Education is key; outreach, communication
- Political, planning processes
- Funding; different priorities
- Gauging social value changes, trends
- Need broader public support
- How do parks draw new visitors/public support?
- How to obtain wider support for user capacity?
- How to address funding concerns?
- How to adjust approach/management to encompass broader spectrum of people?
- How to better involve the public?
- How do you achieve balanced representation for all groups interested in user capacity issue?
- How to keep management adaptive and flexible to changing park needs?
- How do we achieve better efficiency with time management
- How can public be better informed of research/management & end results?
- Methodologies: different ideas ensure validity
- Best method to manage and yet be adaptive to new info
- How do we avoid setting a # limit: based on a set definition of impact (max)
- Defining what a user capacity is for a location and commit fiscal resources?
- Role/relationship of international demographics
- Matrix for defining user capacity



- How accountability is established, reported, determined in adaptive management?
- How do you establish timely benchmarks and milestones to make corrections, seize opportunities, prevent outcomes, etc...
- Defining indicators and standards
- How do you prioritize what you do?
- What common indicators have been used to judge impacts?
- How to select and prioritize indicators
- How to establish standards (when user groups expect something different)
- How do we keep up with the different paces of understanding by academics (quick) and legal framework (slower)?
- How do we define buy-in by users (stakeholders) and managers and other groups?
- What are different groups internal and external buying into? What is being “sold” to or by these groups?
- Desire to understand the “nuts and bolts” of carrying capacity/VERP/LAC, etc...
- What are the limitations/problems with VERP?
- Link between science and management decisions?
- What’s the latest thinking on these issues?
- Link between stakeholders and scientists/managers
- Current litigation: What’s going on?
- Determining the “real driver”—ecological or visitor experience—and research to inform this decision
- Development of indicators/standards given uncertainties/lack of information
- Public education—why it matters and is worth the time
- Public perceptions of “entitlement”
- Barriers to implementation—how to overcome?
- How are other agencies addressing carrying capacity?
- What are the constraints/barriers to planning and implementation?
- How do we balance science and values in decision making discussions?
- Whose values?
- How do we come up with numbers when access is not controlled and there is a lack of user information numbers?
- Learn how to have liaison roles with external groups that can inform park decisions?
- Balance and baseline establish for resources and visitors
- Funding needs to implement to the best extent possible
- Dealing with uncontrollable (by park managers) factors outside park boundary
- Quality experiences leading to quality of life and health
- Climate change
- Learn how to get things funded
- A common language all understand
- A “program” to xxx with this issue?
- How to educate populous about this issue
- How capacities differ depending on facilities, scale
- How to educate, build consensus
- How to reconcile planning with “political structure”
- How can we incorporate larger societal values/issues
- How can “program” decisions persist when politics change
- How can we incorporate varied views
- How can agency coordination help solve problems?
- How can we decide “what to provide?”
- How can we be “positive” about how “limits” – quality
- Can we broaden “limits” to include all management actions?
- How can we integrate social and ecological data?
- How do we integrate qualitative and quantitative data?
- What types of “user capacity” management techniques work where? What are the benefits and drawbacks?



- Develop common agreement about terminology and user capacity approaches (VERP is used with different assumptions)
- Define/understand what “capacity” means—perhaps beyond a quantitative definition
- Does capacity include education?
- Making hard value-laden decisions is more prohibitive than the need for more data
- What type of data gaps exist that defer decision making?
- At any point in time, the data will not be “ideal/adequate”
- \*false belief that science can provide value-laden decisions
- What is absolute ecological integrity?
- How do we incorporate values in a way that works—that captures people’s varied relationships with the place
- How do we address the rights and needs of nature (wildlife, ecosystems, etc...)
- How to educate people about what user capacity is and is not? What the process is? What is do-able? Build trust?
- How to balance social and ecological values in the process.
- How to give more weight to ecological values
- How to better capture and measure ecological impacts and manage for the impacts
- How to come up with meaningful standards and indicators?
- Who comes up with ind and std and makes the decisions?
- How to dovetail public views with technical expertise
- How NPS operationalizes that process
- How to resolve Yosemite lawsuit
- How to avoid future lawsuits
- How to “have a say” in the decision making process
- How to give a voice to protecting future values
- What is the timeline for setting a Yosemite capacity?
- Political support/funding/scale of resources will change. Need to institutionalize principles
- Getting capacity issues and decisions out of the heads of the courts. Everyone has same goal of protection and need to move out of court judgment and into stakeholder discussions. Identify what we have in common: ideas, values
- How do you develop a process where all stakeholders can be satisfied with outcome
- How do you capture qualitative values? Once have research, how do you implement?
- How do you determine baseline?
- How do you plan/implement/manage for conflicting capacities?
- These are complete value judgments we have to reconcile with objective science. Recognize the multiplicity of layers.
- Can begin to know small pieces of conditions in areas. Approach complexity through learning (adaptive management)
- There’s an assumption that there’s something other than adaptive management. Really there’s always mgmt and it’s always changing. So we might as well just embrace it and do it. Now we need to LEARN, model. Not REACT. Move from personal to institutional.
- Pam’s comments: How to get it implementable and institutionalized (hard decisions, money, time-intensive, litigation, political will)
- Engaging the public, stakeholders (How to have public views dovetail with scientific expertise? How to educate public? How to get stakeholders satisfied with the outcome? Build trust. Learn how to have liaison roles with external groups that can inform park decisions?).
- Demographics. Social values/qualitative in decision-making.
- How to avoid future lawsuits?
- How to come up with meaningful standards and indicator



**Round 3: Regardless of the approach chosen, how can land management agencies better implement and institutionalize user capacity systems, given issues such as money, time, political will, complexity, hard decisions, litigation, and other concerns?**

- Are we focusing on the right thing (# ok not a #), should we step back & look @ the resource and visitor experience issue?
- Incremental approach: understand that there are different components to the process.
- Developing the common language.
- Education: implement self (visitor) - regulating plans (fishing tags...)
- Gateway community (involvement) engagement: eco-tourism principles... community –based approach.
- Start with the low-hanging fruit... makes sure this is still part of the process.
- How do we have freedom to make mistakes and to learn from them?
- Desired future conditions: focus on resource conditions. It is critical to ensure that resource values are understood & the relationship to user capacity.
- “question is not answerable”
- Improved and expanded public education is key to achieve buy in – and to put pressure on politicians and managers to find ways to address the listed issues.
- Educate visitors by presenting changes with enthusiasm rather than apologetically – with the benefit being a better visitor experience.
- The pending Yosemite Merced river legal outcome will set a precedent (whichever way the decision turns out) that will have an impact on managers’ implementation.
- Capacity issues don’t just come up when you do a CRMP every 20-30 years.
- Early discussion and possible consensus on DFC: invite your ‘enemies’, communicate as much as possible. Develop common language.
- Define need.
- Break process into steps.
- Homework done, research done, talk to the public...
- In the end you need to make that decision.
- Find common ground. Make it defensible.
- Cap is a tool, many available.
- Education is critical!!! Staff, management, politicians.
- We need to communicate more in depth.
- Focus as much on how to communicate these complex concepts.
- Take the science and make it ‘understandable’ to the average Joe. So much jargon...
- USFW – it’s about managing people, not wildlife. Much less recreation data than wildlife, soils...
- Much less \$\$ spend on OHV, urban interface – focus studies here to learn more...
- USFS – travel management – less OHV because fewer dollars – will that work in court?
- USFW – direction – wildlife #1 – if you have \$\$, invite visitors & managers.
- Integration between agencies – more science/state – of – the – art. Less heat on all of us.
- Learn from each other.
- -example: wilderness management.
  - don’t all agencies mange this for same responses?
- Standard methodology: better staff to staff, interagency, staff to publics
- Academic mini-conference?
- Have those together to hash out many details?
- Peer review practices? -ex: yearly internal review? This group this week was large. Need smaller group to drop into more detail.
- Both types of discussions are valuable. -expert -> mangers <- publics.
- More public involvement – especially clubs, user groups.
- Will reduce management power.
- Public thinks of these processes as ‘planning processes’ they are larger – they are management processes. They will be used into the future for implementation and management.



- Don't reinvent the wheel, share in the information.
- Worth \$ - come together, learn from each other!!
- Look to all resources, wildlife hunting tags.
- Increase communication and transparency.
- Agency<-> users
- Talk about everything. Housing as a capacity component, ## of beds.
- Education of all – about why the cap is important.
- Public involvement is part of the process, all at the table. Public needs information about what a system would “be”/how “works” would work.
- Get resource managers to organize what they know, collect systematic information.
- Software for assembling information re: planning /monitoring.
- Spend more time on desired conditions.
- Do something, start soon!!
- Think about ways to piggy back on existing operations (implementation and monitoring may be insufficient)
- Simple is better (if possible)
- Limits should be based on things user groups can understand and respond to.
- Provide mechanism for involvement to make sure the system is working.
- Institutionalize learning, document what is learning.
- Closing the gate is not the only option.
- Involve *all* stakeholders *including* the users themselves.
- Drive solutions to the lowest possible level.
- Both involvement and education is key- especially with tight budgets.
- Invest in education and desired future conditions.
- Finding a ‘common ground’ with such a diverse users values.
- Ensure that a diversity of visitor experiences is accommodated.
- Prioritize and simplify.
- Coordinate with other agencies
- Pre-emptive planning
- Implement!!
- Define decision space (side boards)
- Define public involvement versus outreach
- Establish public trust early!!!
- Better agency communication.
- Engage elected officials
- Reasoned and informed decision making
- Public needs to be involved in the entire process in how decisions are to be made so the public can be more effective in their participation.
- Include public effectively.
- Understandable decision process.
- Monitoring
- Lobbying for the listed issues (npca)
- Transform visitors into stewards
- Educational and outreach.
- Direct people to healthy activities.
- All of the management tools need to be used not just ‘capacity’ – identify problems then choose.
- In planning, monitoring needs to be prioritized – especially for funding.
- Frontload comprehensive plan (which is well funded) with analysis and needed data collection, etc... so can address monitoring later with adequate funding.
- Relatively lots of \$\$ allocated to GMP -> so make it part of this process.
- Lay appropriate foundation with good plan process.
- Improve staff training- keep institutional knowledge up to date – systematic, regular training on : procedures and legal requirement (statutes)



- Keep all staff informed, not just resource management and planners.
- Do more outreach with the intent to get public to buy-in.
- Meet stakeholders even before needed... keep public engaged and informed before during and after planning process – confront issues right away.
- More funding!!! If not appropriated, find other sources.
- Think outside the box and use creativity in the management actions.
- Better education, it is the purpose of NPS and the national parks. I.e. public involvement.
- Indicators, standards and solutions in order of priority.
- Build open, honest, direct relationships from the beginning with all involved.
- Form advisory board to oversee the quantitative side of desired conditions.
- How to incorporate changing demographics.
- Better outreach to multi-cultural populations.
- Divide problems into steps so they can be addressed in a timely manner.
- Limit opportunities for (legal) challenges.
- Do your homework.
- Need #'s and indicators and standards. They are not mutually exclusive.
- Need political risk-taking.
- Empower visitors to take responsibility to achieve desired objectives.
- Education and learning.
- Build trust.
- Hire appropriate recreation / visitor use staff.
- Create a career track for visitor use assistants!!!
- Understand complex biological systems (utilize vital signs).
- Buy in social and capitol, build trust
- We (scientists and park staff) need to communicate better. When we have new data (such as what came out of apptl) needs to be communicated to the stakeholders.
- Hire more people to package information and figure out best timing for delivery.
- Make better use of modern technology to get information out there. Madera County has a model for that - you don't have to travel there to participate.
- Record data on ground with video.
- Management commitment for staffing and infrastructure in technology to communicate better with the stakeholders in order to build trust. Gary's "make our problem someone else's" and get stakeholders involved in that. More information about what we are doing needs to be out there. Talk about complexities and trade offs.
- Communicate the data and that we want the same thing and commitment made in staffing and organization change.
- Requires a commitment of time, public involvement and money – especially in leadership.
- It's really about individuals incorporating it in vs (?) Intuition.
- Operationize as much of user capacity program as possible: accomplish multiple objectives with every task. Pair up indicators and standards with the NEPA process/impact topics. (though NEPA language confines indicators)
- Micro level of this @ Yosemite with air management.
- Can be frustrating when public zeroes in on one alternative. Why don't we go to congress to get laws changed??
- Key is making sure agency and stakeholders are educated @ same level to help engage things like law change.
- Can a major "planning fatigue" from public.
- Public involvement process: help prioritize it because there is so much planning fatigue. Collaborative effort can cause it to be successful. Being involved in strategic planning?
- Are there better systems we should be looking at instead of capacity systems??
- What are the criteria for determining what tool should be used?
- How we address user capacities is the better question...
- Conflicts between desired conditions are easier to resolve in some places.
- Change from saying one capacity to looking at capacities.
- Analyze the degradations first.



- Do not wait until it is too late to set the limits...
- Question is – who do we decide to limit??
- Distinguish simple capacity issues from complex ones.
- Focus on resource conditions impacted by humans.
- To keep local stakeholders involved in the planning / decision making process.
- Implementing VERP process in all NPS planning in parks.
- Consider visitor management a professional job series with a career ladder.
- There needs to be a personal touch.
- Establish plans, get decisions in writing and stick with it.
- Should have been looking at planning in the 19<sup>th</sup> century.
- Buses should have never been allowed in the falls area. While that area was restored, new areas were paved to direct people's movement.
- How can land management agencies implement and institutionalize user capacities systems???
- “spin management”-> press releases about ‘user capacities’ will be positive (i.e. this will improve the visitor experience vs. it is closed)
- Support YARTS (public transit)
- Have the willingness to go through the “growing pains”.
- The feds, state, counties are going broke. Where is the \$\$ going to come from??
- Create networks so that when things need to be announced you are talking to your friends.
- Announce all of the alternatives to issue management -> focus on what is positive.
- Transfer users into stewards: develop positive relationship – invest people in the solution.
- NPS to create infrastructure to work with dedicated volunteers to implement monitoring and messaging.
- Funding source; dedication to system
- Programs for youth, backpacking.
- Bed tax in park carrier's counties.
- Distribute information at principal visitor centers and front desks.
- Focus on maintaining conditions and implement creative solutions, using many tools.
- Learn from previous experience and draw a line.
- Need to come to agreement on desired conditions!!!

**Round 4: (Same Question as Round 3) Regardless of the approach chosen, how can land management agencies better implement and institutionalize user capacity systems, given issues such as money, time, political will, complexity, hard decisions, litigation, and other concerns?**

- Funding for monitoring should be prioritized and formalized.
- How to institutionalize the commitments when staff changes (training, information transfer, etc.)
- Empowering staff to train managers.
- Choice of indicators is critical, meaningful inexpensive and effective.
- Legislation ineffective without monitoring (sustainable program)
- Feedback about monitoring effectiveness.
- Make monitoring effective and meaningful.
- Make monitoring fit with existing duties, efficient and simple.
- Integrate and communication about monitoring activities to better utilizes resources.
- How can participants implement ‘political will’ about protecting resources?
- How far do we go to give everyone all the access they want?
- Studies should be followed by actions.
- Build trusting relationships (help minimize the need for litigation/ try mediation first.)
- Use advisory committee to help implement plan / management decisions.
- Continue to make good use of the internet as an information / engagement tool.
- Don't design for failure; make it easy for people to comply with the preferred actions.
- Consistency of methods i.e. front country / backcountry for a reservation system.
- Make sure you have right skill set -> be creative.



- Educate public on changes in a positive light.
- The message should be 'why this will be better'...
- People value choice (transportation) keep things on the table for conversation.
- It has to be achievable!!!
- Introducing potential choices gradually – educating along the way to ensure support – understanding (trade-offs).
- Be creative – look @ how to manage use at one time versus overall use.
- Offer transparent choices.
- Examine role of gateway communities in helping the process to find win – win approaches.
- Put responsibilities onto visitors where there is buy in, willingness and feasibility:
- Allow them to practice stewardship by educating them, create some sense of empowerment.
- Don't just 'prohibit' -> positive reinforcement.
- Avoid techno-speak, build common language use laymen's terms.
- Communicate better about where numerical capacity limits are appropriate and where other approaches are better.
- Engage visitors on issues as part on interp involve before public comment period.
- How can the process be simplified?
- Communication often throughout the process.
- Express transportation 'FDC' as part of the GMP process.
- Use a case study approach so can learn from others, i.e. how it worked, what didn't work and why.
- Barriers – inadequate political will, inadequate resources.
- Be consistent among problem types – decision making.
- Steps NPS can take to avoid litigation. Transition of NPS from 'good guys' to 'bad guys' trust!!!
- Adequate public involvement in environmental comprehensive process.
- Process successfully used in other land management agencies.
- Avoidance of litigation is unrealistic.
- Use existing data to determine a number and stick with it.
- Study, study, study = inaction.
- Establish criteria when use capacity approach is appropriate.
- Public buys into need and process – level support.
- Desired conditions are agreed upon by stakeholders.
- NPS should come up with desired conditions with public input, but not to the point of causing inaction.
- Institutionalize resource protection into training among disciplines and a part of performance plans.
- Question is unanswerable - too many variables: money, political will etc. – we don't however have the time.
- Education of appropriate visitor behavior as a way of raising visitor numbers – Yosemite is a cathedral.
- Outreach – requires public support – how to get next generation to buy in.
- Interact with co-op government and others -> implement.
- It's a regional situation.
- If management actions (like transit system) are used, make sure it does the job.
- Need buy-in from stakeholders and public.
- Manage for diversity of experience or it won't get support.
- Create trust and partnerships – Yosemite gateway partnership – mariposa forum.
- Constant exchange of information. Creates political will to support management.
- Need to 'draw a line in the sand' specific head count.
- Create a fluid approach that allows for testing and dialogue on what works.



**D. Symposium Evaluation Form**

**- USER CAPACITY SYMPOSIUM EVALUATION FORM -**

(Optional information) Name: \_\_\_\_\_ Affiliation: \_\_\_\_\_

<b>Symposium Objectives</b>					
<b>1) We would like to know how well you feel we accomplished our objectives for this symposium. Please rate your level of satisfaction with addressing each objective below (check one box)</b>					
SYMPOSIUM OBJECTIVES	(5) = Very Satisfied	(4) = Satisfied	(3) = Neither Satisfied or Unsatisfied	(2) = Unsatisfied	(1) = Very Unsatisfied
Understand why planning and managing user capacity is important.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Build a common understanding and language for the range of user capacity approaches.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explore current perspectives on and approaches to addressing user capacity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Identify and understand the effectiveness and consequences of different management strategies addressing user capacity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explore the application and implications of different user capacity strategies in Yosemite.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Symposium Logistics</b>					
<b>2) We would like your feedback on other aspects of the Symposium. Please rate your level of satisfaction with the following items below (check one box)</b>					
ASPECTS OF THE SYMPOSIUM	(5) = Very Satisfied	(4) = Satisfied	(3) = Neither Satisfied or Unsatisfied	(2) = Unsatisfied	(1) = Very Unsatisfied
Symposium agenda	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meeting venue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participant packets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information and correspondence prior to the symposium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Facilitator (Mary Orton)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Presentations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roundtable conversations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Panel discussions with presenters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Field Visit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





## E. Additional Resources

The following sources of information on user capacity and related topics were suggested at the symposium. This is not meant to be an exhaustive listing.

### Publications:

- *Parks and Carrying Capacity: Commons without Tragedy*, by Robert Manning
- BLM Planning Manual, Denver Service Center
- *National Parks and Protected Areas: Approaches for Balancing Social, Economic and Ecological Values*, by Tony Prato and Dan Fagre
- *A Sand County Almanac*, Aldo Leopold
- *Wilderness Ethics*, Laura and Guy Waterman
- *Wildland Recreation: Ecology and Management*, David Cole and William Hammitt

### Internet Resources:

- <http://www.nps.gov/yose/parkmgmt/symposium.htm>
- <http://www.river-management.org/index.asp>
- <http://oregonstate.edu/dept/press/c-d/CarryingCap.html>
- <http://www.blm.gov/planning/library.html>



## F. List of Preparers

Name	Title	Responsibility
Jim Bacon	Planner, Planning Division, Yosemite National Park	Symposium Project Manager
Kerri Cahill	Planner, Denver Service Center, National Park Service	Event planning and subject matter expert
Linda Dahl	Chief of Planning, Yosemite National Park	Event planning and coordination
Chris Geis	Planning Technician, Planning Division, Yosemite National Park	Logistics coordination and administration
Karen Hughes	Administrative Assistant, Resources Management and Science Division, Yosemite National Park	Registration and meeting notes
Calvin Liu	Public Outreach Specialist, Yosemite National Park	Event logistics and support
Elexis Mayer	Project Manager, Planning Division, Yosemite National Park	Contracting and event planning
Pam Meierding	Public Outreach and Involvement Specialist, Yosemite National Park	Event planning and communications
Bret Meldrum	Branch Chief, Visitor Use and Social Science, Resources Management and Science Division, Yosemite National Park	Event planning and coordination
Jen Nersesian	Branch Chief of Public Outreach and Involvement / Assistant to the Superintendent, Yosemite National Park	Outreach and coordination
Niki Nicholas, PhD	Chief, Resources Management and Science Division, Yosemite National Park	Event planning and coordination
Mary Orton	The Mary Orton Company, LLC	Event planning and lead facilitation
Kim Regier	Administrative Assistant, Planning Division, Yosemite National Park	Logistics and administration
Kristina Rylands	Project Manager, Planning Division, Yosemite National Park	Event planning and subject matter expert
Gretchen Stromberg	Landscape Architect, Planning Division, Yosemite National Park	Event planning
Ed Whittle	Communications Specialist, Yosemite National Park	Audio – visual technical support