

September 10, 2006
 Mary Beth Nelson, Recreation Planner
 Sitka Ranger District, US Forest Service

Recreation Carrying Capacity of Visitor Attractions

- A. Three different definitions of Carrying Capacity:
- Minimum-Number of users or days to keep a facility open
 - Maximum-Number reached to fill habitat
 - Optimum-Number reached after considering other criteria that may change the maximum number
- B. Defining Optimum Carrying Capacity
- Criteria is developed from values
 - Value Judgments=one thing is better than another - Quality implies subjective and evaluation judgment.
 - Values are articulated in *management objectives* (See table below)
 - Problems with human value conflicts
- C.

Framework of Carrying Capacity Analysis	
1) Descriptive Component-how the recreation system works, physical and biological, human and non-human use patterns	
↓	
Management Parameters-Elements managers can manipulate, (amount of use or way an area is used)	Impacts- Elements affected by the amount or type of use. Type of impact determines the type of capacity (ecological, physical, facility or social)
2) Evaluative Component-Defines how an area should be managed and specifies how much impact is too much. (How much change is acceptable.)	
↓	
Management Objectives-Defines the type of experience the recreation setting should provide.	Evaluative Standards-Specify acceptable levels of impact in terms as minimum, maximum, and optimum.

- D. Four different types of Carrying Capacities-
- Ecological (ecosystem impacts)
 - Physical (space impacts) numbers/area w/out ecosystem considerations
 - Facility (facility impacts) numbers/facility
 - Social Capacity (social impacts) number of encounters

E. Conditions Necessary to Establish a Social Capacity

1. To establish social carrying capacity, there must be a known relationship between use level or other management parameters and social impacts. (Related to the *descriptive component* (See table above))
2. To establish social capacity there must be agreement among relevant groups about the type of recreation experience to be provided. (Related to the *management objectives* (See table above))
3. To establish social capacity there must be agreement among relevant groups about appropriate levels of social impacts. (Related to *evaluative standards*. (See table above))

Reference: Shelby, B. & T. Heberlein, "Carrying Capacity in Recreation Setting", 1986, Oregon State University Press.