

Visitor Capacities on Rivers

Bo Shelby, Ph.D., Oregon State University
Doug Whittaker, Ph.D., Confluence Research and Consulting

Public use on North American rivers grew substantially in the past half century. The most dramatic increases occurred in the 1970s and early 1980s, but demand for “space on the river” continues to be high, while the number of rivers remains finite. On many rivers, this led to crowding, conflict, and resource degradation.

In response, river managers used a variety of management actions including “visitor capacities” – use limits designed to ensure that biophysical or social impacts do not exceed standards defining resource health and experience quality. A substantial literature addresses impacts, standards, and carrying capacities (or other management actions) to control impacts.

The presentation begins with a brief review of capacity concepts, 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. Example rivers have a diversity of uses, use levels, and impact problems:

Alsek/Tatshenshini Rivers, Alaska/Canada
Arkansas River, Colorado
Boundary Waters Canoe Area, Minnesota
Brooks River, Katmai, Alaska
Chattooga River, So. Carolina/Georgia
Delta River, Alaska
Deschutes River, Oregon
Gulkana River, Alaska
Kenai River, Alaska
Kern River, California

McCloud River, California
McNeil River, Alaska
Middle Fork Salmon, Idaho
Niobrara River, Nebraska
North Umpqua River, Oregon
Pit River, California
Rogue River, Oregon
Selway River, Idaho
Snake River in Hells Canyon, Idaho/Oregon
Youghiogheny River, Pennsylvania