

To Boat or not to Boat? A Case Study of Recreational Conflicts and Impacts on the Chilkat River, Alaska

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Friday, January 31st
12:15* -1:15 pm, 202 Hammond Building

The Chilkat River, located near Haines, Alaska is well known for the annual gathering of 3-4000 bald eagles that takes place along its banks in November and December of each year. The Chilkat Bald Eagle Preserve, designated in 1985, seeks to preserve the unique habitat that draws these eagles and the salmon upon which they feed.

At the time of the Preserve's inception, recreational use levels on the river were extremely low, as evidenced by the lack of significant regulations in the Preserve's management plan. Recently, and driven largely by cruise ship passenger tours, use levels have risen to the point where state biologists have become concerned about habitat impacts. One specific concern is whether or not commercial jet-boat wakes impacting the banks of the river are affecting rearing juvenile salmonids.

A field study, conducted in the summer of 2002, made measurements of near-bank wave heights and turbidity. Waves up to 30 cm in height and suspended sediment concentrations up to 40 g/l were observed, suggesting that the hydraulic disturbances associated with the wakes were non-trivial. Crude estimates of near-bank energy dissipation and shear stress suggest that, depending upon channel size, boat wakes have the potential to be the dominant erosive mechanism. Recommendations were developed, which seek to minimize these potential impacts through the use of minimum operating distances and speed restrictions.

* Note that this is a 'brown bag' seminar series. 202 Hammond will be open at 12:00pm and you are encouraged to bring a lunch, show up early, and socialize with your colleagues.