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Title: What can the National Lake Assessment tell us about ecosystem service benefits in lakes?

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Abstract:

The condition of lakes, ponds, and reservoirs is often viewed as existing along a continuum from pristine to impacted. The 2007 National Lake Survey was conducted to assess the condition of the nation's lakes. Over 1,000 lakes were surveyed and detailed physical and chemical data were collected. Field crews also completed subjective evaluations of each lake's biotic integrity, trophic condition, degree of human disturbance, aesthetic character, suitability for

swimming, and recreational value. There is a high degree of concordance between objective and subjective measures of lake condition. Evaluation of the underlying physical and chemical parameters that affect the subjective assessments gives insight into how condition affects perception and ultimately ecosystem service benefits.

This approach is useful for evaluating the overall health of waters but isn't sufficient to adequately evaluate their value for alternative, and often conflicting uses. An ecosystem services perspective allows for the consideration of the suitability of lakes for the provisioning of a wide variety of vital benefits to human populations, and for assessments of benefit trade-offs. When evaluating ecosystem services both actual and perceived water quality will have important affects on a lake's potential to provide benefits. This analysis has broad implications for the management of lakes. In this talk lake ecosystem service benefits be defined and compared to designated uses as defined by the U.S. Clean Water Act.