

# Online photos provide evidence for the value of clean water

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Using data from the photo-sharing website Flickr, researchers found that clean lakes receive more visits than dirtier ones, and users are willing to travel farther to visit them. Credit: MJI Photos (Creative Commons/Flickr)

Think of the last time you planned a visit to a lake. Why did you choose the lake you did? Did you consider the quality of the water? The answers to these questions are critical to understanding how lake users make decisions about their recreation choices and the value society places on water resources.

New research published in *Frontiers in Ecology and the Environment* presents a novel approach to calculating the value of [clean water](#). Analyzing photos posted to the online photo-sharing site Flickr, researchers at the Natural Capital Project and Iowa State University found Minnesota and Iowa lakes with greater water quality receive more visits than dirtier lakes, and that users are willing to travel farther to visit those clean, clear lakes.

The traditional approach to gathering [lake](#) visitation data would be through expensive and time-consuming surveys, asking people where they recreate and why. In this study, the researchers used online photographs taken of lakes that were uploaded to Flickr and could easily be analyzed with minimal expense. The researchers used this information, along with spatial analysis techniques and models, to estimate the values users place on lakes.

"The photos tell us a story about what lakes people prefer, where they live, and how far they travel to visit different lakes" said Bonnie Keeler, co-author and lead scientist with the Natural Capital Project at the University of Minnesota's Institute on the Environment.

As the authors note, there are many lakes and rivers that are impaired and efforts to restore or improve water quality can be expensive. This study offers one approach to capturing the value of [water quality](#) improvements—information that can inform cost benefit assessments and better targeting of restoration investments. The study is also valuable because it underscores the potential for social-media data to inform social-ecological research.

**More information:** *Frontiers in Ecology and the Environment*, [www.esajournals.org/doi/abs/10.1890/140124](http://www.esajournals.org/doi/abs/10.1890/140124)

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