

# Emily K. Read, Ph.D.

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Emily Read is the Chief of Web Communications for the U.S. Geological Survey Water Mission Area. In this role, Emily is responsible for the digital delivery of water data and information in accessible, discoverable, and interoperable formats. Emily oversees the digital marketing and promotion of USGS Water science and educational resources and is active in national-scale research on water quality, interactive data visualizations for water, and the promotion of interdisciplinarity for addressing water resources issues. Emily lives in Madison, WI with her family.

## Work Experience

<b>Chief, Web Communication Branch</b> — USGS Water Mission Area	May 2017 — Present
<b>Science Advisor</b> — USGS Office of Water Information	Oct 2016 — May 2017
<b>Detail: USGS Ecosystems Associate Director and Dept. of Interior Civil Engineer</b> — USGS Office of Water Information	May 2016 — Aug 2016 July 2014 — Oct 2016
<b>Assistant Professor (Visiting)</b> — Bard College	Jan 2013 — May 2013
<b>Postdoctoral Associate</b> — Cary Institute for Ecosystem Studies	July 2012 — June 2014

## Education

<b>University of Wisconsin</b> — Ph.D. Environmental Engineering, Madison, WI	Aug 2007 — June 2012
<b>Indiana University</b> — M.Sci. Environmental Science, Bloomington, IN	Aug 2005 — June 2007
<b>University of Arizona</b> — B.Sci. Environmental Science, Tucson, AZ	Aug 2000 — Dec 2004

## Related Activities and Awards

Aspen Institute Water Fellow	2017
Recipient of USGS Shoemaker Award for Communication	2017
Featured research in Water Resources Research and AGU EOS Spotlight	2017
Participant, Aspen Dialog on Sharing and Integrating Water Data for Sustainability	2016 — 2017
NEON-USGS Powell Center Iterative Ecosystem Forecasting Working group	2016
Grant award panelist for National Science Foundation Macrosystems Biology	2016
Grant award panelist USGS Community for Data Integration	2015
Recipient of NSF-Popular Science Vizzies Visualization Challenge Award	2015

## Publications

Dietze M.C., A. Fox, J. Betancourt, M. Hooten, C. Jarnevich, T. Keitt, M. A. Kenney, C. Laney, L. Larsen, H. W. Loescher, C. Lunch, B. Pijanowski, J. T. Randerson, **E. Read**, A. Tredennick, K. C. Weathers, E. P. White. 2018. Iterative near-term ecological forecasting: Needs, opportunities, and challenges. PNAS Proceedings of the National Academy of Sciences USA [www.pnas.org/cgi/doi/10.1073/pnas.1710231115](http://www.pnas.org/cgi/doi/10.1073/pnas.1710231115).

Dietze M.C., A. Fox, J. Betancourt, M. Hooten, C. Jarnevich, T. Keitt, M. A. Kenney, C. Laney, L. Larsen, H. Loescher, C. Lunch, B. Pijanowski, J. T. Randerson, **E. Read**, A. Tredennick, K. C. Weathers, E. P. White. 2017. Iterative ecological forecasting: Needs, opportunities, and challenges. NEON Workshop Report. DOI: 10.6084/m9.figshare.4715317

**Read, E.K.**, Carr, L., De Cicco, L., Dugan, H.A., Hanson, P.C., Hart, J.A., Kreft, J., Read, J.S. and Winslow, L.A., 2017. Water quality data for national-scale aquatic research: The Water Quality Portal. Water Resources Research. [\[Link\]](#)

Read J.S., C. Gries, **E.K. Read**, J. Klug, P.C. Hanson, M.R. Hipsey, E. Jennings, C.M. O'Reilly, L.A. Winslow, D. Pierson, C. McBride, D.P. Hamilton. 2016 A synergistic opportunity for environmental networks: Pairing data sharing with community-built tools. Inland Waters.

**Read, E. K.**, M. O'Rourke, G. S. Hong, P. C. Hanson, L. A. Winslow, S. Crowley, C. A. Brewer and K. C. Weathers. 2016. Building the team for team science. Ecosphere 7(3):e01291.10.1002/ecs2.1291 [\[Link\]](#)  
Blodgett D, **E Read**, J Lucido, T Slaweki, D Young. 2016. An analysis of water data systems to inform the Open Water Data Initiative. Journal of the American Water Resources Association. DOI: 10.1111/1752-1688.12417 [\[Link\]](#)

**Read, EK**, V Patil, S Oliver, A Hetherington, J Brentrup, J Zwart, K Winters, J Corman, E Nodine, IR Woolway, H Dugan, A Jaimes, A Santoso, G Hong, LA Winslow, PC Hanson, KC Weathers. 2015. The importance of lake-specific characteristics for water quality across the continental US. *Ecological Applications*, 25(4), 943-955. [\[Link\]](#)

Read JS, KC Rose, LA Winslow, **EK Read**. 2015. A method for estimating a bulk diffuse attenuation coefficient (K<sub>d</sub>) from paired temperature sensors. *Limnology and Oceanography: Methods*. 13(2): 53-61. DOI: 10.1002/lom3.10006 [\[Link\]](#)

**Read, EK**, M Bucknell, M Hines, J Kreft, J Lucido, J Read, C Schroedl, D Sibley, S Stephan, I Suftin, P Thongsavanh, J Van Den Hoek, J Walker, M Wernimont, L Winslow, and A Yan. 2015. New insight into California's drought through open data. *BAAMA Journal*, 8(1). [\[Link\]](#)

Read, JS, JI Walker, A Appling, DL Blodgett, **EK Read**, LA Winslow. 2015. geoknife: Reproducible web-processing of large gridded datasets. *Ecography*. doi:10.1111/ecog.01880 [\[Link\]](#)

Cheruvilil KS, PA Soranno, KC Weathers, PC Hanson, SJ Goring, CT Filstrup, **EK Read**. 2014. Creating and maintaining high-performing collaborative research teams: the importance of diversity and interpersonal skills. *Frontiers in Ecology and Evolution*. 12: 31-38. DOI: 10.1890/130001 [\[Link\]](#)

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Rose KC, LA Winslow, JS Read, **EK Read**, C Solomon, R Adrian, PC Hanson. 2014. Improving the precision of lake ecosystem metabolism estimates by identifying predictors of model uncertainty. *Limnology and Oceanography: Methods*. 12: 303-312. doi:10.4319/lom.2014.12.303 [\[Link\]](#)

**Read EK**, M Ivancic, PC Hanson, B Cade-Menun, and KD McMahon. 2014. Phosphorus speciation in a eutrophic lake by <sup>31</sup>P NMR spectroscopy. *Water Research*. DOI: 10.1016/j.watres.2014.06.005

McMahon KD and **EK Read**. 2013. Microbial contributions to phosphorus cycling in eutrophic lakes and wastewater. *Annual Reviews: Microbiology*. 67:199-219. DOI: 10.1146/annurev-micro-092412-155713. [\[Link\]](#)

**Kara, EL**, C. Heimerl, T. Killpack, M. Van de Bogert, H. Yoshida, and S. R. Carpenter. 2012. Assessing a decade of phosphorus management in the Lake Mendota, Wisconsin watershed and scenarios for enhanced phosphorus management. *Aquatic Sciences* 74(2):241-253. DOI: 10.1007/s00027-011-0215-6. [\[Link\]](#)

Carey CC, PC Hanson, DA Bruesewitz, GW Holtgrieve, **EL Kara**, KC Rose, RL Smyth, KC Weathers. 2012. Organized Oral Session 43: Novel Applications of High-Frequency Sensor Data in Aquatic Ecosystems: Discoveries from GLEON, the Global Lake Ecological Observatory Network. *Bulletin of the Ecological Society of America*, 93, 100-105. DOI: 10.1890/0012-9623-93.1.100. [\[Link\]](#)

**Kara EL**, PC Hanson, DP Hamilton, M Hipsey, KD McMahon, JS Read, LA Winslow, J Dedrick, KC Rose, CC Carey, S Bertilsson, D Motta-Marques, L Beversdorf, T Miller, CH Wu, YF Hsieh, E Gaiser, TK Kratz. 2012. Time-scale dependence in numerical simulations: Assessment of physical, chemical, and biological predictions in a stratified lake from scales of hours to months. *Environmental Modelling and Software*. 35: 104-121. [\[Link\]](#)

**Kara EL**, LA Winslow, YH Hu, PC Hanson, and KD McMahon. 2012. A decade of seasonal dynamics and co-occurrences within freshwater bacterioplankton communities from Lake Mendota, WI, USA. *ISME Journal* 7(3): 680-684. DOI:10.1038/ismej.2012.118. [\[Link\]](#)

**Kara, EL**. 2012. "Eutrophication processes and microbial ecology of Lake Mendota, Wisconsin." PhD Dissertation, University of Wisconsin-Madison. *Dissertation Abstracts International* 74.02.

Hanson PC, DP Hamilton, EH Stanley, N Preston, O Langman, **EL Kara**. 2011. Nature of the Load Versus Nature of the Lake in Determining the Fate of Allochthonous Dissolved Organic Carbon. *PLoS ONE* 6(7): e21884. DOI: 10.1371/journal.pone.0021884. [\[Link\]](#)

**Kara EL** and A Shade. 2009. Temporal dynamics of South End tidal creek bacterial communities, Sapelo Island, Georgia. *Applied and Environmental Microbiology*. 75:1058-1064. [\[Link\]](#)

Shade A, CC Carey, **EL Kara**, S Bertilsson, KD McMahon, and M Smith. 2009. Can the black box be cracked? The augmentation of microbial ecology with high-resolution, automated sensing technologies. *ISME Journal*. 3:881-888. [\[Link\]](#)

**Kara EL**. 2006. Funneling: A Threat to Indiana's Lakes. *Water Column*, Vol.18 No.1: 1-2.

