

Environmental monitoring work in the Lake Superior basin: Indicators and Primary Data

Alex Mayer

Civil & Environmental Engineering

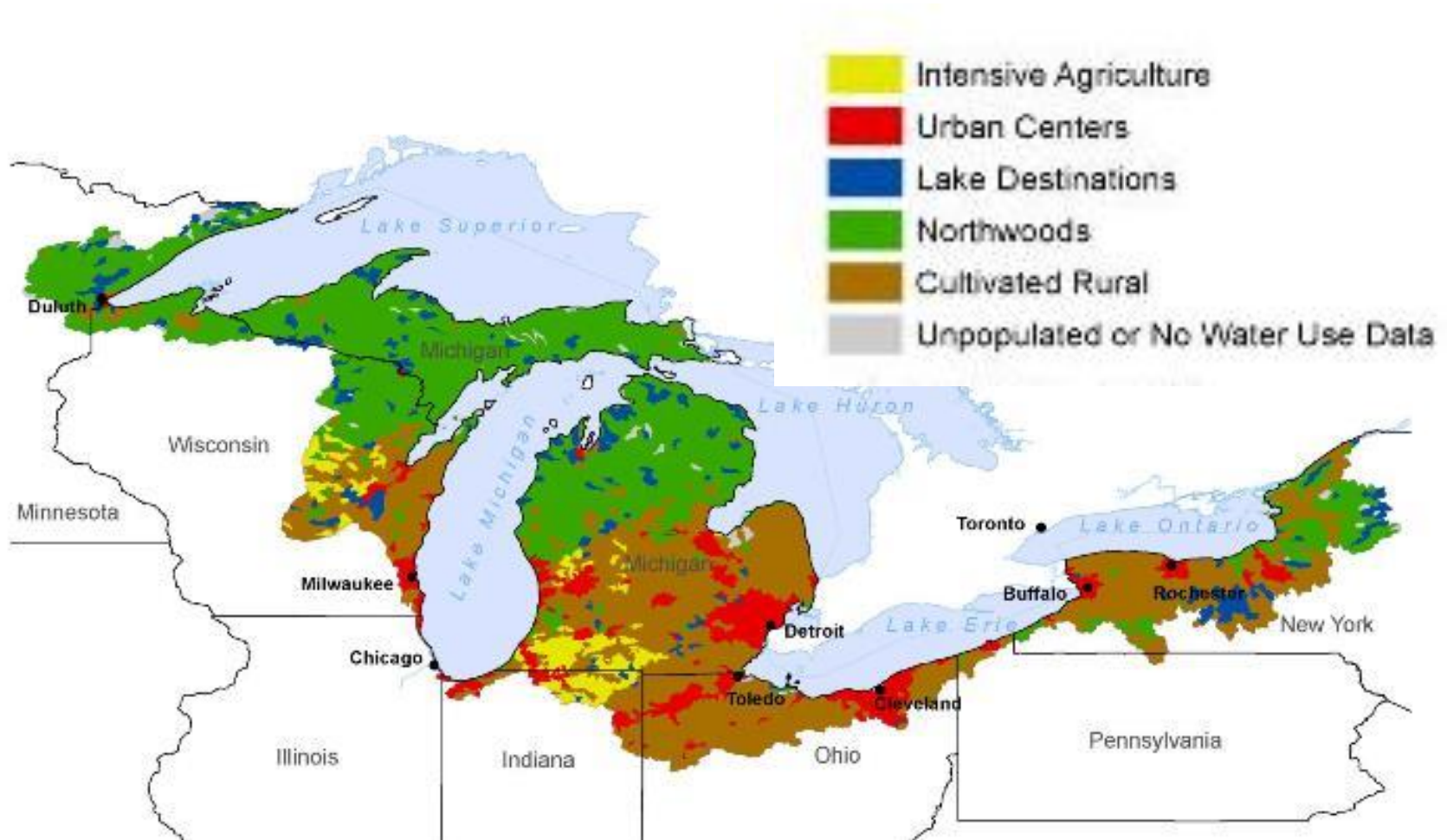
Michigan Technological University

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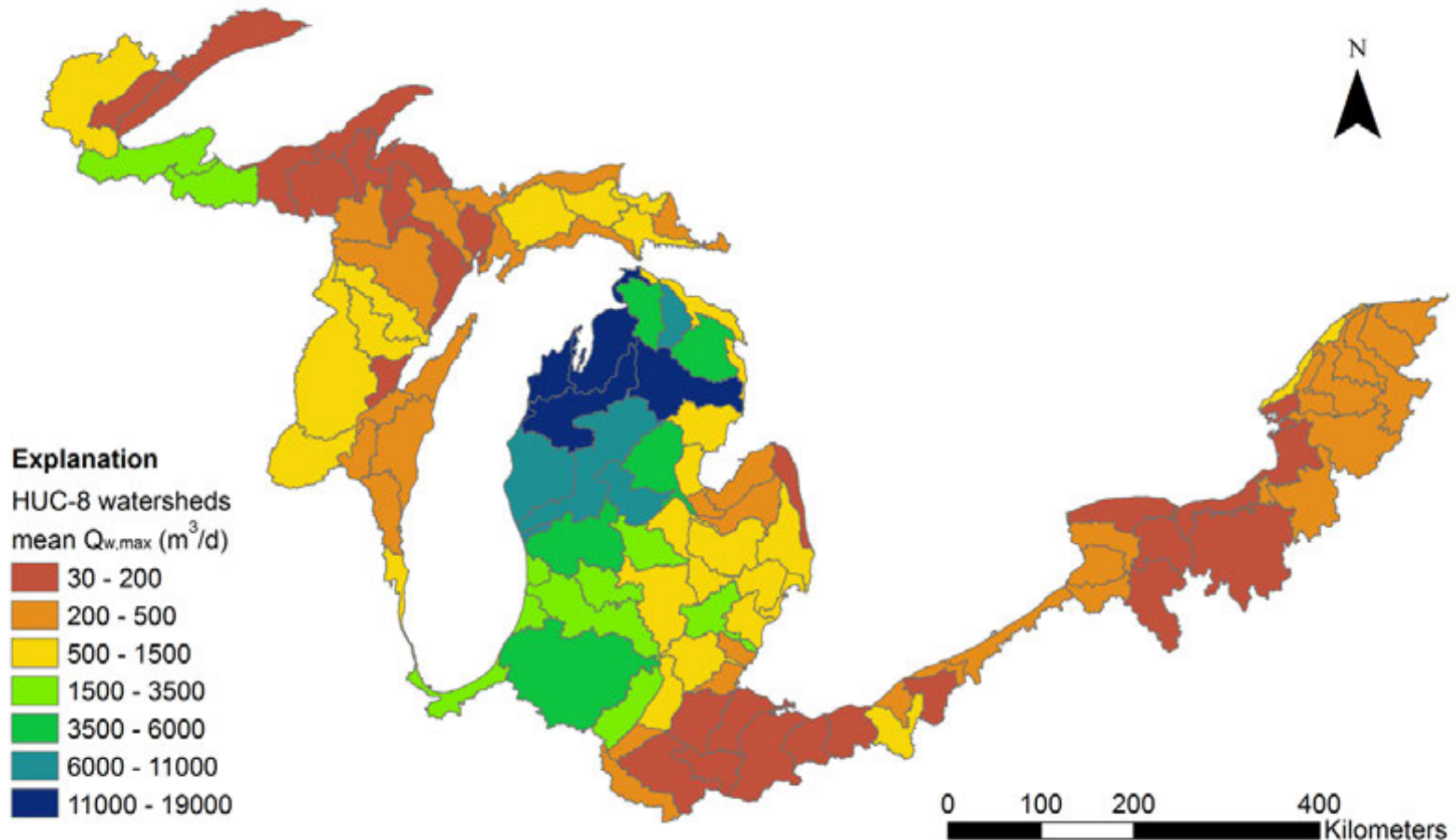
Synthetic indicators

Watershed classification based on 12 biophysical and social factors

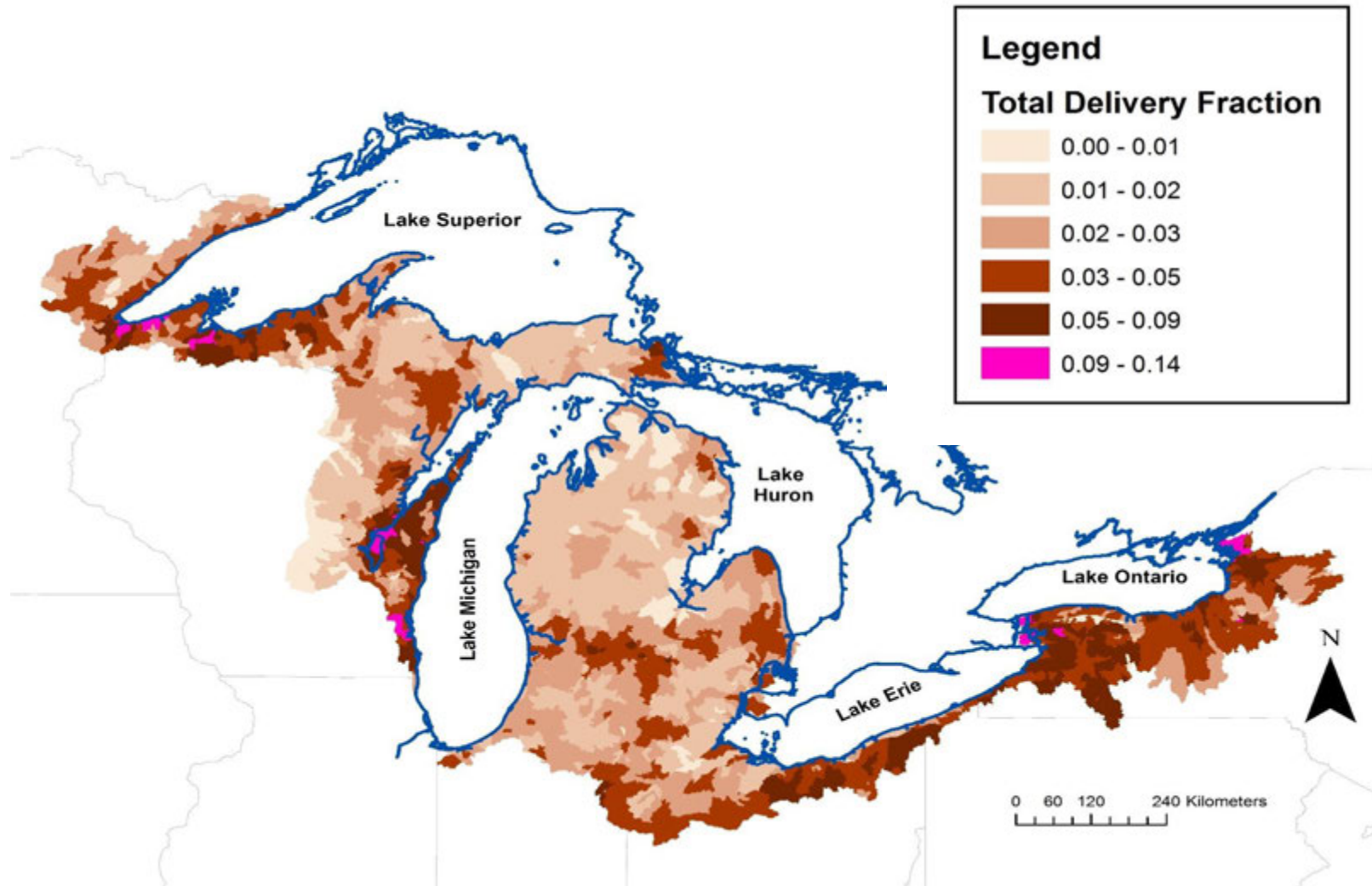


Mayer, Winkler, and Fry. 2014. *Ecological Indicators*

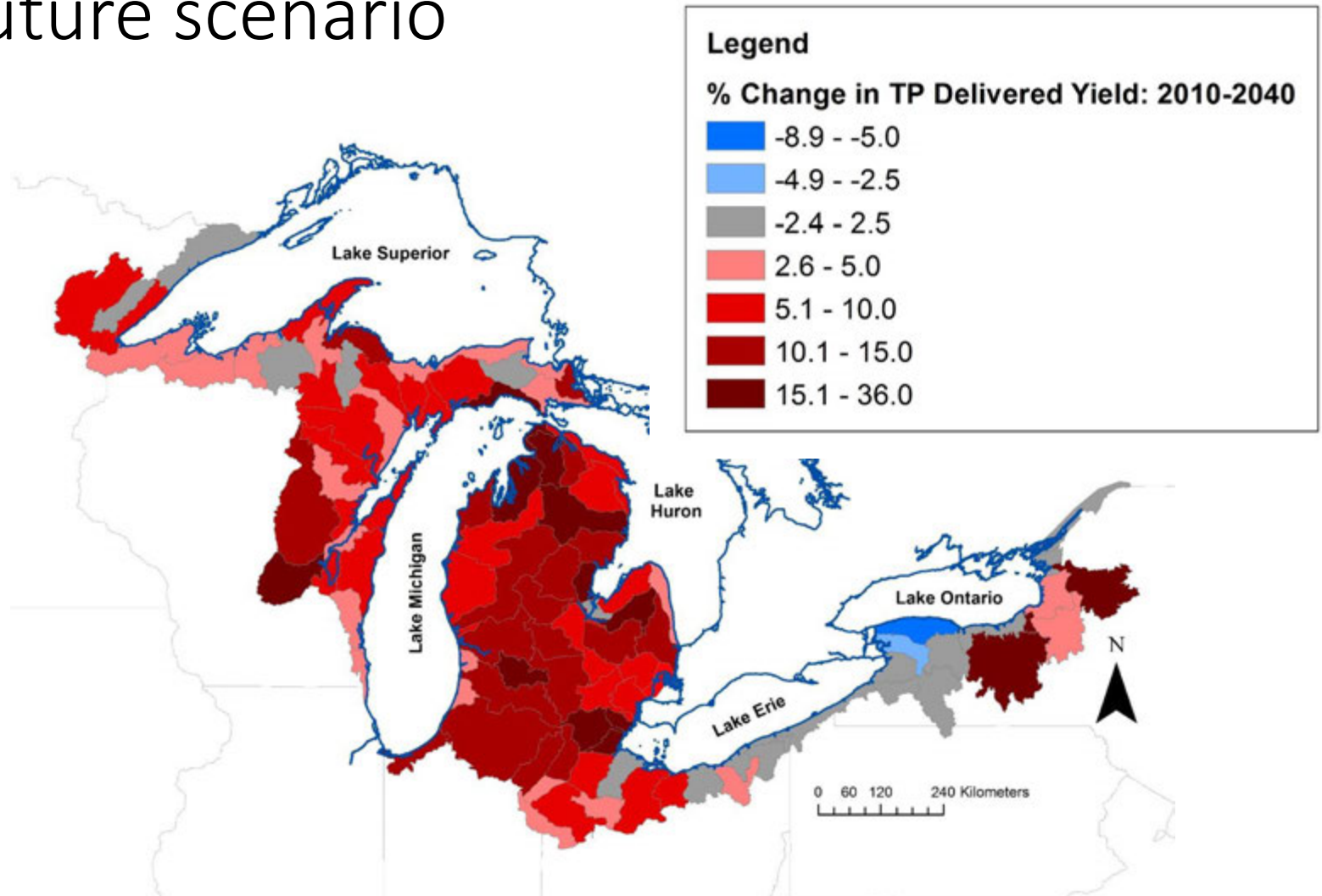
Maximum allowable pumping rates based on ecological and hydrogeological constraints



Delivery fraction for Total Phosphorous



Delivered Phosphorous Yield: % Change 2010-2040 Urban Expansion + Biofuels Future scenario





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Tributary phosphorus monitoring in the U.S. portion of the Laurentian Great Lake Basin: Drivers and challenges

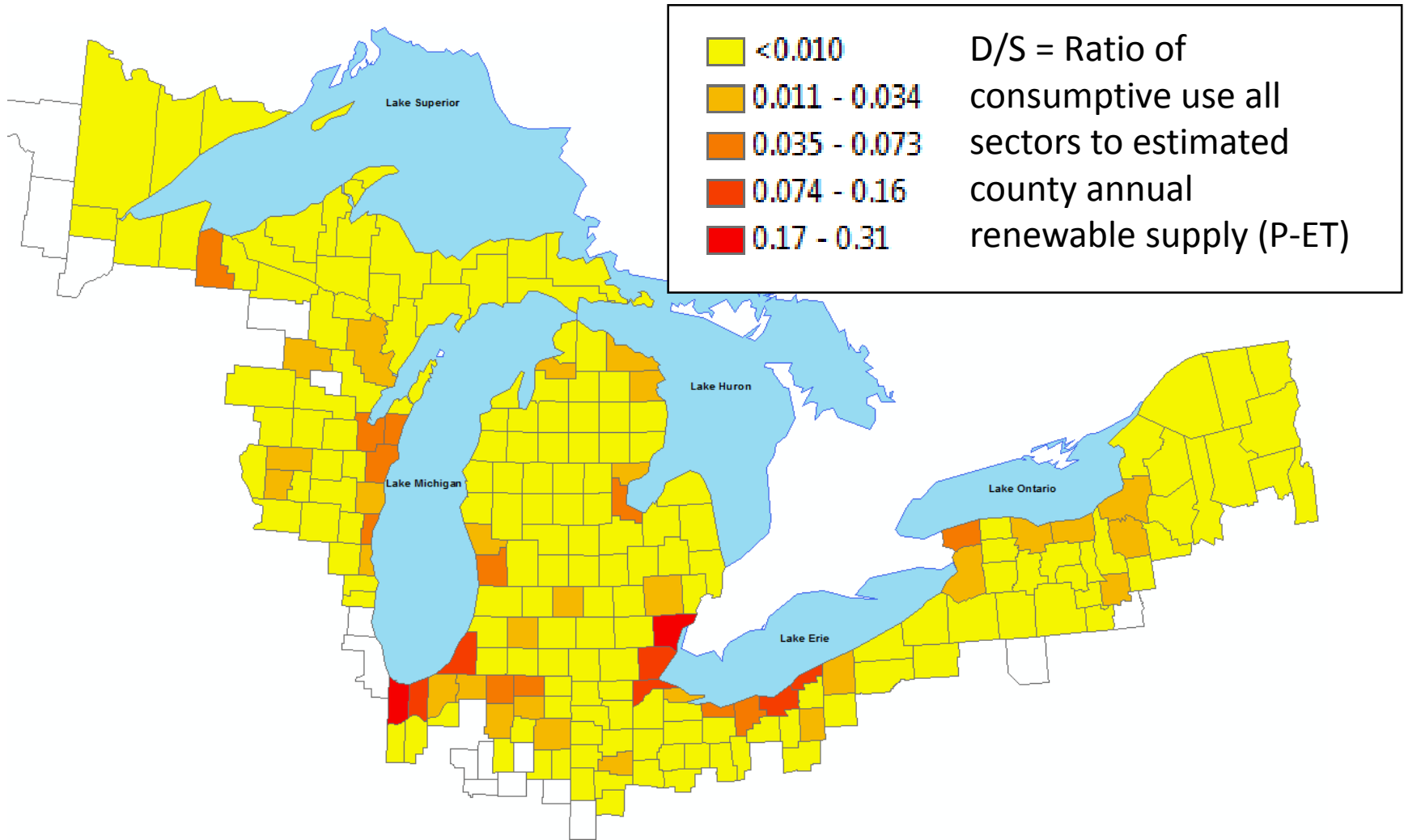
Meredith Ballard LaBeau ^{a,1}, Hugh Gorman ^{b,2}, Alex Mayer ^{a,*}, David Dempsey ^{c,3}, Alicia Sherrin ^{a,4}

^a Department of Civil and Environmental Engineering, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931, USA

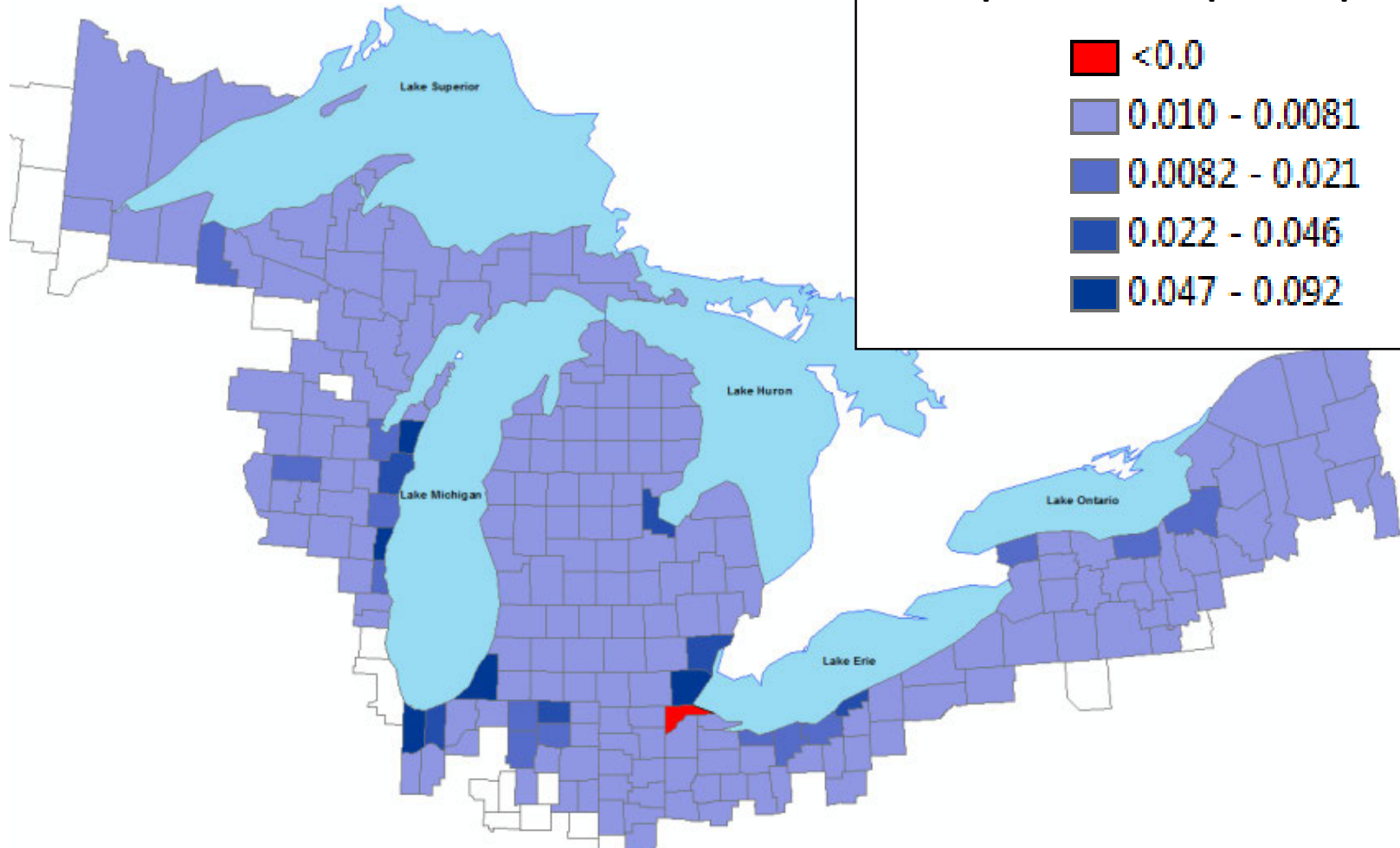
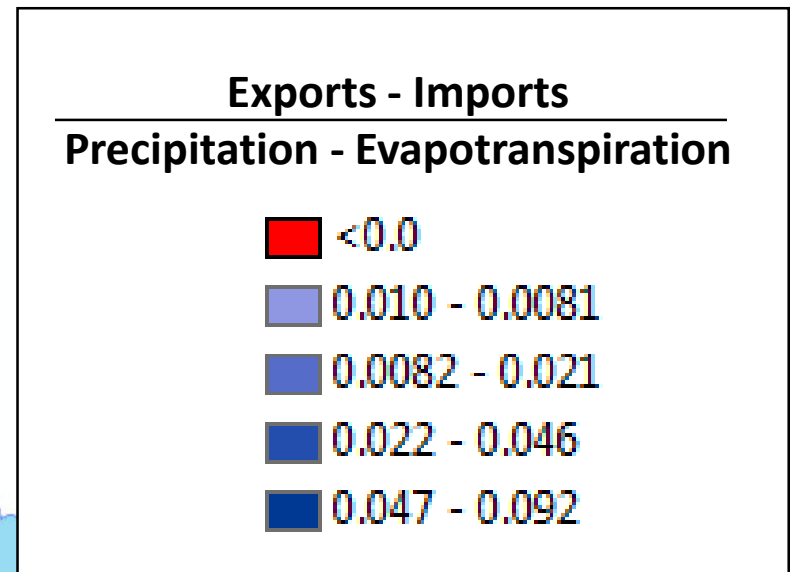
^b Department of Social Sciences, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931, USA

^c International Joint Commission U.S. Section, 2000 L Street, NW Suite #615, Washington, DC 20440 USA

Water stress



Net virtual water trade



Primary data

Huron Creek watershed monitoring

