

# James A. Johnson

18029 83<sup>rd</sup> Avenue North, Maple Grove, MN 55311

(651) 336-8696

james@freshwatersci.com

## EDUCATION

### University of Minnesota–Twin Cities

M.S. Water Resources Science – Limnology Track (2010)

### University of Wisconsin–Madison

B.S. Zoology / Biological Aspects of Conservation (1995)

## PROFESSIONAL EXPERIENCE

### Freshwater Scientific Services, LLC - Environmental Consulting

2003 - Present

Founder and President ([www.fixmylake.com](http://www.fixmylake.com))

- Aquatic plant surveys (point-intercept, biomass, scuba)
- Curlyleaf pondweed turion surveys (sediment samples)
- Evaluation of lake-wide herbicide treatments to control invasive aquatic plants
- Stormwater monitoring, analysis, and watershed/lake model development
- Stream rating curve development
- Lake nutrient and water mass balance determination
- Lake sediment analysis (soil characteristics, sediment core incubation)
- Evaluation of motorboat impacts for EAW process
- Evaluations of carp effects on aquatic plants
- Lake bathymetric mapping (depth contour maps), volume calculation, and hypsographic curves

### Three Rivers Park District - Water Resources Management

2000 - 2006

Water Resources Technician

- Evaluation of phosphorus lawn-fertilizer restriction as an urban BMP
- Primary author of Lake Independence Diagnostic Feasibility Study and TMDL report
- Conducted vegetation surveys and assessed effects of winter drawdown on turion viability in Cleary Lake
- Developed lake and stormwater computer models (FLUX, BATHTUB, PondNet, P8)
- Deployed, operated, and maintained automated lake sampling stations ([www.lakeaccess.org](http://www.lakeaccess.org))
- Conducted bi-weekly monitoring of over 25 metro-area lakes
- Laboratory analysis of water samples for P, N, TSS, chl-a, alkalinity

### City of Maple Grove, Minnesota - Lake Quality Commission

2002 - 2003

City Commissioner

- Elected chairman of commission in 2003

### Minneapolis Park and Recreation Board - Environmental Operations

1997 - 2000

Water Quality Specialist

- Responsible for monitoring of 13 urban lakes for physical, chemical, and biological parameters
- Designed, implemented, and analyzed comprehensive aquatic vegetation surveys to track invasive species
- Monitored stormwater runoff to chain-of-lakes; estimated nutrient loading and evaluated BMP performance

### Wisconsin Department of Natural Resources - Bureau of Research

1995 - 1996

Natural Resources Research Technician

- Shallow lake ecology and management
- Evaluation of motorboat impacts to aquatic plants, sediment, and invertebrates
- Zooplankton sampling and enumeration
- Aquatic plant surveys (shore-transect method)
- Tested the Draft USEPA Bioassessment and Biocriteria Technical Guidance Document

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## SPECIALIZED TRAINING

- SCUBA certified (150 logged dives)
- Geographic Information Systems
- Computer model development (P8, FLUX, BATHTUB, SLAMM, PondNet, MNLEAP, LTROPHIC)
- Laboratory methodology for analysis of sediment, water chemistry, and biological samples
- Aquatic macrophyte identification
- Zooplankton enumeration

## PRESENTATIONS

Effect of Common Carp on the Survival and Growth of Wild Rice in Upper Clam Lake, WI  
71<sup>st</sup> Annual Midwest Fish & Wildlife Conference– Minneapolis, MN (2010)

Effectiveness of Whole-lake Herbicide Treatment for Managing Curlyleaf Pondweed in Minnesota Lakes  
Minnesota/Wisconsin Invasive Species Conference – St. Paul, MN (2010)  
Wisconsin Lakes Convention – Green Bay, WI (2009)  
North American Lakes Management Society 2008 Symposium – Lake Louise, Canada (2008)  
Minnesota Invasives Species Conference – Duluth, MN (2008)  
University of Minnesota Water Resources Retreat – Sandstone, MN (2008)  
Minnesota Department of Natural Resources Professional Seminar on Invasives – St. Paul, MN (2006)  
Weaver Lake Conservation Association Annual Meeting (recurring) – Maple Grove, MN (2005-2010)

Curlyleaf Pondweed Management Strategies in Minnesota  
Beebe Lake Association Annual Meeting – St. Michael, MN (2010)  
Chisago Lakes Lake Improvement District Board Meeting - (2008)  
Rice County Coalition of Lake Associations Joint Annual Meeting – Faribault, MN (2005)

Aquatic Invasive Species in Minnesota  
Minnesota Recreation and Park Association (Natural Resources Workshop) - Plymouth, MN (2005)

Restricting the Use of Phosphorus Fertilizers to Reduce Phosphorus Export from Residential Areas  
North American Lake Management Society (NALMS) Annual Conference - Madison, WI (2005)  
37<sup>th</sup> Annual Water Resources Conference - Brooklyn Center, MN (2004)  
Minnesota Water Conference (Poster Session) - Minneapolis, MN (2004)  
Society for Conservation Biology 17<sup>th</sup> Annual Conference – Duluth, MN (2004)  
Minnesota Audubon Society - Minneapolis, MN (2004)  
Minnesota Lakes & Rivers Conference - St. Cloud, MN (2002)

Evaluation of USEPA Draft Lake and Reservoir Bioassessment and Biocriteria Technical Guidance Document  
Multi-Regional Meeting on Water Quality Standards and Criteria - Burlington, VT (1996)

## PUBLICATIONS & REPORTS

Effects of Carp on Wild Rice Survival and Growth in Upper Clam Lake, WI (2010)  
*Final Report to St. Croix Tribal Environmental Services*

Wild Rice Seed Enumeration for Upper Clam Lake, WI (2010)  
*Final Report to SEH, Inc.*

Comparison of Two Methods for Sampling Biomass of Aquatic Plants (2010)  
*Journal of Aquatic Plant Management* – (January 2011 issue)  
Co-authored with Dr. Ray Newman, University of MN

Minnesota Phosphorus Fertilizer Law (2007)  
*Lakeline – Summer 2007*  
Co-authored with John Barten, Three Rivers Park District

Lake Independence Phosphorus TMDL (2007)  
Primary author - co-authored with John Barten and Brian Vlach, Three Rivers Park District

Weaver Lake Pilot Project 2004-2005  
Co-authored with Wendy Crowell, MDNR