



Spring 2022

Spring is here... I think!



This week we awoke to snow on the ground in Boise, Idaho. The snow on the foothills most of the week provided an interesting contrast to the lush green foliage on the valley floor. While I have to admit this spring has been cooler than I prefer, I remind myself how great it is to have the snowmelt in the rivers when the hot weather does finally arrive. I know the fish appreciate it!

- Paul Kusnierz

### **Communications Officer Election**

In the Winter Newsletter and in early March we send out requests for Communications Officer candidates. Unfortunately, the due date has come and passed and we have not received any. We would really like to see someone fill this role. Information about the position can be found in the Section's bylaws (<https://waterquality.fisheries.org/bylaws/>). If you are interested in the position or just have questions about it, please contact me at: [pkusnierz@alumni.nmu.edu](mailto:pkusnierz@alumni.nmu.edu).

### **AFS Resource Policy Committee Activity Report (2021–2022)**

In my role as the Water Quality Section (WQS) representative to the AFS Resource Policy Committee (RPC) the following are the principal issues that the RPC has been involved in during 2021–2022. I want to thank the WQS members who assisted in submitting and compiling comments on the following topics and the cooperation afforded by the RPC committee chair Joanna Whittier. My tenure as the WQS RPC representative began in early 2020 just ahead of the anticipated AFS annual meeting in Columbus, Ohio in August 2020 which, due to the COVID-19 pandemic, was a virtual event. This no doubt interrupted some good progress that the RPC was making on several national policy issues being put forth by the Trump administration. Still, the RPC was able to gather significant input from AFS members and sections on the following topics in 2020–2022.

#### ***U.S. EPA "Strengthening Transparency in Regulatory Science" Proposed Rule (April 2020)***

Members of the WQS provided input to drafting a comment letter from then AFS President Scott Bonar to then U.S. EPA Administrator Andrew Wheeler expressing concern about this proposed rulemaking. The Proposed Rule would have seriously undermined and weakened the ability of EPA to use the best available science in setting policies and regulations. The letter stated that AFS urges that this Proposed Rule be rescinded, and that all valid and vetted scientific information be used in decision-making and that the proposed Rule would diminish the critical role of scientific evidence in helping to make decisions that impact the human and environmental health of Americans.

#### ***Freshwater Climate Policy Recommendations***

The RPC requested WQS member comments in early 2021 on a draft document for AFS freshwater policy recommendations relative to climate change. The intent then was to provide factual information and tangible policy recommendations to lawmakers and the public. Numerous WQS members provided their ideas

and recommendations which were relayed to the RPC. At this time the RPC reports that no action has yet been taken to develop recommendations citing the difficulty in channeling scientific expertise into policy relevant comments. Nonetheless, it remains an important priority for the RPC.

### ***Clean Water Act Section 401 Certification Rule***

The WQS was invited to provide input on a letter signed by the Consortium of Aquatic Science Societies on the Clean Water Act Section 401 Certification Rule proposed by U.S. EPA in June 2021. Again, several WQS members responded with comments that were used to form AFS input to the comment letter. This rule became effective only recently.

The willingness of WQS members to provide input is both readily evident and much appreciated. I look forward to soliciting input on other initiatives that are sure to arise for the remainder of 2022.

- Chris Yoder, AFS WQ Section  
[cyoder@mwbinst.com](mailto:cyoder@mwbinst.com)

### **Why are there dead fish in my lake?!**



Fish die as a result of a wide variety of natural and unnatural causes.

Fish may die of old age, starvation, body injury, stress, suffocation, water pollution, diseases, parasites, predation, toxic algae, severe weather, and other reasons. A few dead fish floating on the surface of a pond or lake is not necessarily a cause for alarm. Expect some fish to die of old age, injury, winter starvation, or even post-spawning stress in the springtime. However, when large numbers of fish of all sizes are found dead and dying, it is necessary to investigate and determine the cause. Sudden, large fish kills in lakes are often the result of fish suffocation caused by oxygen depletion. Fish kills from oxygen depletion

usually occur in the early morning hours (at dawn) in very rich (green water) ponds following:

- (1) the die-off of a large algae bloom;
- (2) the decay of aquatic weeds after treatment;
- (3) the turnover of oxygen-poor bottom waters following a thunderstorm.

Symptoms of oxygen depletion may include an abnormal distribution of fish gulping at the water surface. Large fish may die first, but all sizes of fish are usually affected. The color and clarity of pond water may change and a foul odor may be released.

In order to prevent fish suffocation in lakes:

- Do not overfertilize ponds.
- Do not overstock fish.
- Do not feed ducks.
- Prevent animal waste from entering the lake.
- Install surface or bottom aerators to circulate oxygen in the water.

A number of water samples from the surface and bottom waters are usually required to identify a problem. Lake management companies can usually conduct water quality tests to establish the pattern of conditions in the lake and can make the necessary recommendations to help your property prevent future fish kills.

- Allstate Resource Management  
[info@allstatemanagement.com](mailto:info@allstatemanagement.com)

### **How particles from tires can affect aquatic organisms**

Read about recent work at Oregon State University demonstrating that tire particles can affect the growth and behavior of some aquatic species.

<https://today.oregonstate.edu/news/tiny-tire-particles-inhibit-growth-organisms-freshwater-coastal-estuaries-studies-find>

### **Reference collection on acid rain**

Our colleague, Dr. Robert Summerfelt is retired and has a large collection of information pertaining to acid rain. He has requested help from the WQS membership to help identify a library, research institution, or other site where

this material will serve a useful purpose. Please reach out to him if you have suggestions or questions. He can be reached at [rsummerf@gmail.com](mailto:rsummerf@gmail.com) or 515-292-9126 (please leave a voice mail).

### **13th National Monitoring Conference April 24–28, 2023**

This meeting is currently in the planning stages and will be held in either Hartford, Connecticut or Virginia Beach, Virginia. The National Water Quality Monitoring Council is requesting session proposals for concurrent sessions that align with the 2023 conference themes. Proposals are due June 10, 2022. Additional information can be found at:

[https://www.nalms.org/2023nmc/?utm\\_source=Master+List&utm\\_campaign=412adbef21-EMAIL\\_CAMPAIGN\\_2020\\_04\\_27\\_09\\_00\\_COPY\\_01&utm\\_medium=email&utm\\_term=0\\_caeffd9c94-412adbef21-184926793](https://www.nalms.org/2023nmc/?utm_source=Master+List&utm_campaign=412adbef21-EMAIL_CAMPAIGN_2020_04_27_09_00_COPY_01&utm_medium=email&utm_term=0_caeffd9c94-412adbef21-184926793).

### **Recent Member Publications**

Jager, H. I., N. A. Griffiths, C. H. Hansen, A. W. King, P. G. Matson, R. Pilla, and D. Singh. 2022. Getting lost tracking the carbon footprint of hydropower. *Renewable & Sustainable Energy Reviews* 162:112408.

Jager, H. I., M. R. Hilliard, M. Langholtz, R. Efrogmson, C. C. Brandt, S. S. Nair, and J. Kreig. 2022. Ecosystem service benefits to water users from perennial biomass production. *Science of The Total Environment*:155255.

Storch, A. J., H. A. Schaller, C. E. Petrosky, R. L. Vadas Jr, B. J. Clemens, G. Sprague, N. Mercado-Silva, B. Roper, M. J. Parsley, E. Bowles, and R. M. Hughes. 2022. A review of potential conservation and fisheries benefits of breaching four dams in the Lower Snake River (Washington, USA). *Water Biology and Security*:100030.

Vera, I., B. Wicke, P. Lamers, A. Cowie, A. Repo, B. Heukels, C. Zumpf, D. Styles, E. Parish, F. Cherubini, G. Berndes, H. Jager, L. Schiesari, M. Junginger, M. Brandão, N. S. Bentsen, V. Daioglou, Z. Harris, and F. van der

Hilst. 2022. Land use for bioenergy: Synergies and trade-offs between sustainable development goals. *Renewable and Sustainable Energy Reviews* 161:112409.

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### **In Closing**

As always, thank you to the members that contribute to this newsletter. I hope everyone's summer planning and field seasons are going smoothly. Hopefully you're able to fit in a nice vacation or two. And, don't forget about the annual meeting in Spokane August 21<sup>st</sup>–25<sup>th</sup> (<https://afsannualmeeting.fisheries.org/>)!

Take care,

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