Great Lakes Panel Member Updates
Fall 2023

Meeting of the Great Lakes Panel on Aquatic Nuisance Species
November 14-15, 2023 | Detroit, Michigan

U.S. Federal

U.S. Fish and Wildlife Service
No update provided.

Contact: Amy McGovern, U.S. Fish and Wildlife Service, 612-713-5109, amy_mcgovern@fws.gov

National Oceanic and Atmospheric Administration

NOAA GLERL conducted multiple studies in Lake Michigan focused on invasive quagga mussels, including: (1) sampling mussel veligers frequently to assess growth, timing, and distribution nearshore to offshore; (2) seasonal assessments of invasive quagga mussel body condition and reproductive status; and (3) tracking quagga mussel growth in a long-term field experiment. We also conducted a lake-wide assessment of quagga mussel body condition and reproductive status in Lake Ontario as a part of the Cooperative Science and Monitoring Initiative.

Recently published paper:
Zhang, H., Mason DM, Boucher NW, Rutherford ES, Cannon D, Kessler J, Fujisake-Manome A, Wang J, and Fulton, EA. Effects of Vertical Mixing on the Lake Michigan Food Web: An Application of a Linked End-to-End Earth System Model Framework. Ocean Dynamics https://doi.org/10.1007/s10236-023-01564-w.

- In this paper, the authors developed a linked earth system model and used it to explore how vertical mixing affects the productivity of Lake Michigan (LM), the world's fifth-largest lake, whose food web and fisheries have been adversely affected by invasive Dreissena mussels.

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National Park Service
No update provided.

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U.S. Army Corps of Engineers
No update provided.

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U.S. Coast Guard

Ballast Water Regulation

The Coast Guard published its ballast water discharge standard regulation in the Spring of 2012. The standard aligns with the IMO D-2 standard and require the installation of type-approved ballast water management systems (BWMS) on "salties". The use of type approved ballast water management methods are required on those new ships constructed after 1 DEC 2013 and will be implemented on existing ships during the vessel's first scheduled drydock after 2014 or 2016 depending on the vessel's BW tank capacity and availability of type approved systems.

The Coast Guard anticipates that more than 3,000 United States domestic vessels in various classes will be required to install an approved ballast water management system (BWMS). In addition, about 9,000 foreign vessels that enter U.S. waters each year will be subject to the rule. The IMO estimates that more than 60,000 vessels worldwide will need to comply with the Ballast Water Management Convention when it enters into force.

CG Type Approval

The multi-faceted type approval process consists of land-based and shipboard-based testing (by independent labs) focused on the biological efficacy of the BWMS. For those systems whose performance could be affected by the cold and pure fresh water of the Great Lakes, additional testing may be necessary. Assessment of the BWMS' ability to properly operate in the harsh marine environment is also undertaken and all of the system's components are examined to ensure compliance with marine engineering, electrical, and mechanical standards. This testing and certification is usually conducted by vessel classification societies. The Coast Guard has certified five Independent Labs (IL) that are involved in the type approval process. Duluth-Superior's Great Ship Initiative is part of a certified IL. As of October 2023, the Coast Guard's Marine Safety Center has type approved 51 BW treatment systems.

Ballast Water Working Group (BWWG)

The Ballast Water Working Group has completed the 2022 annual report and it is posted on this website; 2022 Summary of Great Lakes Ballast Water Management (greatlakes-seaway.com)

In 2022, 100% of vessels bound for the Great Lakes Seaway from outside the Exclusive Economic Zone (EEZ) received ballast management exams on each Seaway transit. In total, all 10239 ballast tanks were assessed during the 521 vessel transits. Vessels that did not exchange their ballast water or flush their ballast tanks were required to either retain the ballast water and residuals on board, treat the ballast water in an environmentally sound and approved manner, or return to sea to conduct a ballast water exchange.

In 2022, there were 431 foreign flagged ships with a working Ballast Water Treatment System (BWTS) onboard (206 on first transit, 225 on subsequent transit). Vessels that were unable to exchange their ballast water/residuals and that were required to retain them onboard received a verification exam during their outbound transit prior to exiting the Seaway. In addition,100% of Ballast Water Reporting Forms (BWRFs) were screened to assess ballast water history, compliance, voyage information and proposed discharge location. BWWG verification efforts
indicated that there was no non- compliant ballast water discharged in the Great Lakes Seaway system.

Vessel Incidental Discharge Act (VIDA)

On December 4th, 2018, the Vessel Incidental Discharge Act was signed into law as part of the Coast Guard Authorization Act. The title provides for a uniform, national standard to govern discharges that are incidental to vessel operations, such as ballast water discharges. It makes the Environmental

Protection Agency the lead for establishing these standards, and it makes the Coast Guard the lead for monitoring and enforcing the standards. The Coast Guard and the EPA are working on their respective regulatory mandates.

On Monday, October 26th, 2020 the EPA published its "Vessel Incidental Discharge National Standards of Performance" proposed rule in the Federal Register. This proposed rule would establish national standards of performance for discharges incidental to the normal operation of a vessel that will apply primarily to commercial vessels 79 feet in length and above that discharge into waters of the United States or waters of the contiguous zone. The proposed rule also includes procedures for states to petition EPA for additional requirements as provided for under the VIDA. Public comments on the proposed rule were accepted for 30 days and the EPA is currently reviewing the comments from the docket.

VIDA requires the USCG to promulgate implementation, compliance, and enforcement requirements for EPA's national performance standards:

- The USCG program will be no less stringent than the EPA's current VGP, to ensure, monitor, and enforce compliance with the EPA's national performance standards.
- Implementing regulations will include vessel management practices, design and construction, testing, approval, installation, and use of marine pollution control devices.
- VIDA includes additional requirements such as developing an intergovernmental workgroup with Federal and State agency cooperation, submitting annual invasive species reports to congress, and developing an invasive species contingency plan.

The Coast Guard established a working group in December 2019 to help implement several of state coordination requirements. The Ballast Water Reporting and Enforcement Data Working Group with interested State partners, the CG's Navigation Center, EPA, and members of the Smithsonian's National Ballast Water Information Clearinghouse (NBIC) continues their work virtually. This workgroup's current focus has been on ensuring States have access to the Marine Traffic Automatic Identification System, as well as information on how to receive commercial vessel BW reporting information from NBIC. The participating states now have direct access to the NBIC data.

- Note: The EPA is developing a Supplemental Notice to the Vessel Incidental Discharge National Standards of Performance proposed rule. EPA anticipates that the Supplemental Notice will provide clarification on the proposed rule, share new ballast water data that EPA is receiving from the U.S. Coast Guard, and discuss additional regulatory options EPA is considering for the final rule. EPA intends to sign the Supplemental Notice in the Fall of 2023 and make it available for public comment in the Federal Register shortly thereafter. During the comment period, EPA will solicit comments specific to the issues identified in the Supplemental Notice. EPA anticipates that the final rule addressing public comments received on both the proposed rule and the Supplemental Notice will be signed for publication in the Fall of 2024.

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U.S. Forest Service
No update provided.

Contact: Amanda Kunzmann, USDA Forest Service, 414-297-3431, akunzmann@fs.fed.us

U.S. Department of Agriculture-APHIS

No update provided.

Contact: Vacant

U.S. Department of State
No update provided.

Contact: Nadia Sbeih, U.S. Department of State, 202-647-3228, SbeihND@state.gov

U.S. Environmental Protection Agency
No update provided.

Contact: Kevin O'Donnell, U.S. EPA- Great Lakes National Program Office, 312-353-0813, ODonnell.Thomas@epa.gov

U.S. Geological Survey
No update provided.

Contact: Patrick M. Kočovský, U.S. Geological Survey, 419-625-1976, pkocovsky@usgs.gov

State/Provincial

Illinois
No update provided.

Contact: Brian Schoenung, Illinois Department of Natural Resources, 217-558-4581, brian.schoenung@illinois.gov

Indiana
No update provided.

Contact: Eric Fischer, Indiana DNR, 317-234-3883, efischer@dnr.in.gov

Michigan
No update provided.

Contact: Sarah LeSage, Michigan DEQ, 517-243-4735, lesages@michigan.gov

Minnesota

- Signal Crayfish Confirmed: The Minnesota DNR confirmed signal crayfish *(Pacifastacus leniusculus)*, an invasive non-native species, in Lake Winona, Douglas County. This is the first confirmation of signal crayfish in Minnesota waters. A commercial harvester contacted the DNR after trapping two signal crayfish in Lake Winona. As of November 3, 2023, the harvester has found eight additional signal crayfish in Lake Winona. The DNR followed up with trapping in Lake Winona and in two adjacent connected lakes but did not capture additional signal crayfish. One female was among the 10 adult signal crayfish captured and removed from Lake Winona. As of November 2023, no eggs or juveniles have been found.
- Ballast water: The Minnesota Pollution Control Agency (MPCA) general permit for ballast water discharges covers approximately 250 vessels. The general permit requires development of a

ballast water and sediment management plan, and in some cases a compatibility review of available ballast water treatment technologies to meet the IMO standards. The MPCA has been actively involved in reviewing/commenting on US EPA's proposed National Standards of Performance for incidental discharges from vessels, including ballast water, as required under the Vessel Incidental Discharge Act (VIDA). MPCA staff has also been engaged with the U.S. Coast Guard as they begin developing regulations for implementation of the yet-to-be finalized National Standards of Performance.

- Early Detection: The Minnesota DNR partnered with the Minnesota Aquatic Invasive Species Research Center (MAISRC), the University of Minnesota Extension and many counties and local partners on an annual statewide search for new populations of starry stonewort, called "Starry Trek." In 2023, 187 volunteers searched 215 Minnesota waterbodies. No new starry stonewort infestations were found during the 2023 Starry Trek.
- Nonnative Phragmites: The Minnesota DNR continues to work with cooperators to implement a coordinated response to nonnative Phragmites (*Phragmites australis* subsp. *australis*) in Minnesota. In 2023, DNR contractors visited 420 nonnative Phragmites sites in 38 counties. At 95 of the sites, no treatment was done because no nonnative Phragmites was found at the site, largely due to previous years' effective treatment. Most of the treated sites were very small. Of the 292 sites where treatment occurred, 210 of them were less than one tenth of an acre.
- Invasive Carp: The Minnesota DNR continues to build partnerships with the U.S. Geological Survey (USGS), the U.S. Fish and Wildlife Service (USFWS), Wisconsin DNR, NPS, and Wild Rivers Conservancy with carp capture method testing in 2023. Additional upcoming projects include using attractant stations to concentrate invasive carp for capture, identifying watershed breaches that can be blocked to prevent invasive carp movement, and modeling invasive carp reproduction in the Upper Mississippi River to identify priority locations for management. The DNR is completing a structured decision-making process with invasive carp experts and stakeholders to inform the update of the Invasive Carp Action Plan. The Minnesota DNR continues to: monitor for all life stages of invasive carp using a variety of fisheries gears; tag and track invasive carp; contract with commercial fishers to capture invasive carp; and develop new techniques to remove invasive carp in our low-density population.

Contact: Kelly Pennington, Minnesota DNR, 651-259-5131, kelly.pennington@state.mn.us

New York
No update provided

Contact: Catherine McGlynn, New York State Department of Environmental Conservation, 518-408-0436, catherine.mcglynn@dec.ny.gov

Ohio
No update provided.

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Ontario
No update provided.

Contact: Francine MacDonald, Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry, 705-755-5136, Francine.macdonald@ontario.ca

Pennsylvania
No update provided.

Contact: Jim Grazio, Pennsylvania DEP, 814-217-9636, jagrazio@pa.gov

Québec
No update provided

Contact: Annick Drouin, Québec Ministère des Forêts, de la Faune et des Parcs, 418-654-6984 annick.drouin@mffp.gouv.qc.ca

Wisconsin
No update provided.

Contact: Amy Kretlow, Wisconsin DNR, 920-838-2597, Amy.Kretlow@Wisconsin.gov

Regional/Binational

International Joint Commission
No update provided.

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Great Lakes Fishery Commission
No update provided.

Contact: Marc Gaden, Great Lakes Fishery Commission, 734-662-3209 x14, marc@glfc.org

Great Lakes Commission
No update provided.

Contact: Erika Jensen, Great Lakes Commission, 734-971-9135, ejensen@glc.org

Canadian Federal

Fisheries and Oceans Canada
No update provided.

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Transport Canada
No update provided.

Contact: Vacant

LOCAL COMMUNITIES

United States
No update provided.

Contact: Vacant

Canada
No update provided.

Contact: Vacant

Environmental/User Groups

The Nature Conservancy
No update provided.

Contact: Lindsay Chadderton, The Nature Conservancy, 574-631-4992, lchadderton@tnc.org

National Wildlife Federation
No update provided.

Contact: Marc Smith, National Wildlife Federation, 734-887-7116, msmith@nwf.org

Ontario Federation of Anglers and Hunters
No update provided.

Contact: Brook Schryer, Ontario Federation of Anglers and Hunters, 705-748-6324 ext. 227, brook_schryer@ofah.org

Tribal Authorities

Great Lakes Indian Fish & Wildlife Commission
No update provided.

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Chippewa Ottawa Resource Authority
No update provided.

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PRIVATE/COMMERCIAL

Lake Carriers' Association
No update provided.

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University/Research

Great Lakes Sea Grant Network-Research and Extension
No update provided.

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Minnesota Aquatic Invasive Species Research Center
No update provided.

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Invasive Species Centre
No update provided.

Contact: Rebecca D'Orazio, Invasive Species Centre, rdorazio@invasivespeciescentre.ca

At-Large

Doug Jensen- Minnesota DNR
No update provided

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Great Lakes Saint Lawrence Seaway Development Corporation
No update provided.

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Wildlife Forever
No update provided

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Wisconsin Sea Grant
No update provided

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Alliance for the Great Lakes
No update provided

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Université du Québec à Chicoutimi
No update provided

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