



March 3, 2021

130th Maine Legislature
Chair Senator Brenner and Chair Representative Tucker
Committee on Environment and Natural Resources
(delivered in person)

RE: Maine Association of Wetland Scientists Testimony In Opposition to LD 390: An Act Regarding the Mapping of Shoreland Zones

Dear Chairmen and Committee Members,

The Maine Association of Wetland Scientists (MAWS), currently in its 31st year as a professional organization, is focused on wetland science, regulation, and education in Maine. We offer the following testimony in opposition to LD 390.

MAWS consists of approximately 150 members, including consultants, regulators, educators, and biologists working in Maine. We work across the state helping developers, agencies, and municipalities to identify wetland and stream resources, design projects that avoid and minimize impacts to natural resources, and obtain local, state, and federal permits. We are experienced professional wetland scientists who have delineated thousands of miles of wetland boundaries throughout the state. We have countless hours of on-the-ground experience examining vegetation, soils, and hydrology to determine if areas should be considered jurisdictional wetlands. We are well versed in local, state, and federal regulations and many of our members are past and present members of local planning boards, select boards, and comprehensive planning committees.

MAWS is concerned with proposed changes to the definitions of “Freshwater wetland”, “Forested wetland,” “Outlet stream”, and “Stream” proposed in LD 390. The proposed changes to these definitions shift the criteria for identification of these resources away from physical and biological characteristics observed on-the-ground and toward GIS-based mapping products, such as the U.S. Fish and Wildlife Service National Wetlands Inventory (NWI) and the U.S. Geologic Survey’s National Hydrography Dataset (NHD). We know through our extensive wetland-related experience that NWI and NHD are simply not detailed enough to accurately map the location and extent of these important resources. Therefore, MAWS does not support these proposed changes.

MAWS members are intimately familiar with NWI and NHD and recognize their value as high-level planning and site screening tools. However, these resources should not, and cannot replace on-the-ground wetland and stream identification. NWI mapping is primarily based on aerial imagery and there are inherent inaccuracies when interpreting wetland boundaries from aerial photographs, specifically errors of omission and inaccurate boundary delineation. For example, aerial photographs with leaf cover (leaf-on photographs) can lead to substantial under representation of forested wetlands, which are often obscured by tree cover in aerial imagery. Also, late summer or fall photographs may not show standing water or evidence of hydrology that are visible during spring photos. Furthermore, wetland boundaries may change over time due to influences from surrounding land use, wildlife, and climate. NWI maps are only updated periodically, and therefore the maps are unlikely to represent true conditions on the ground. These limitations can lead to a substantial under representation of wetlands that are actually present in an area.

Similarly, we do not believe that streams need to be mapped by NHD in order to be protected under Shoreland Zoning. Similar to NWI maps, the NHD is a great high-level planning tool, but it is replete with

errors of omission and location. Streams are highly valuable resources and contain sensitive and ecologically important habitat and are often only identified through on-site investigations. Relying solely on NHD mapping for stream identification will likely result in fewer streams being included in Shoreland Zoning, which means a reduction in protection for streams.

It is our opinion that these proposed changes are not in keeping with the intention of the Mandatory Shoreland Zoning Act, 38 M.R.S.A Section 435, which declares that the purpose of zoning and land use controls in the Shoreland Zone is to, among other things, prevent and control water pollution, protect wildlife habitat, protect buildings and lands from flooding, and to protect coastal and freshwater wetlands. By limiting the resources to which the law applies to only those mapped by NWI and NHD, LD 390 would substantially reduce the amount of wetlands and streams that are protected, which would reduce the effectiveness of the law and run counter to its very purpose.

It is important to note that the existing language in the Mandatory Shoreland Zoning Act already compromises wetland protection through the exclusion of forested wetlands, as well as the exclusion of non-forested wetlands that are less than 10 acres in size. Not having Shoreland Zoning regulation apply to these resources already puts thousands of acres of wetlands at risk. Forested wetlands comprise the majority of wetland area in the state, and these resources already lack protections afforded by Shoreland Zoning. As proposed, LD 390 would further reduce the protections on valuable wetland and stream resources by limiting it to only what is mapped by NWI and NHD and would put even more wetlands and streams at risk in the state. Again, NWI and NHD maps are useful as a planning tool. However, they are inaccurate and often do not reflect actual conditions in the field.

We do recognize the burden that field mapping of wetlands can have on a municipality, and we understand that field verification of wetlands and streams can be costly and time-consuming. However, we also know the vital role that wetlands play in our ecosystems and communities. From flood abatement to pollution control to wildlife habitat to shoreline stabilization, wetlands are critical to maintaining a healthy ecosystem. It is our extensive experience that makes us confident that sole reliance on NWI and NHD will underrepresent wetlands and streams on the landscape and will lead to more impacts to these valuable resources.

If this bill has been proposed to address concerns with the time, money, and resources necessary to accurately map wetlands and streams in municipalities, MAWS would support increased training and assistance opportunities for municipalities, and we offer our services in that regard. In the past, MAWS has assisted with revisions to the Mandatory Shoreland Zoning Act to help municipalities include more flexible language in their ordinances. MAWS can also put on workshops and trainings regarding wetlands and we are available to provide advice regarding specific wetland-related issues (identification, regulation, conservation) that a municipality may have.

Thank you for your consideration of these comments and we would be happy to answer any questions.

Respectfully submitted,



Bryan Emerson (PWS)
MAWS President
bryan.emerson@tnc.org
207-607-4821



Matt Kennedy
MAWS Program Chair
mkenn117@gmail.com
978-578-6801