STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

TESTIMONY OF

BRIAN KAVANAH
DIRECTOR, BUREAU OF WATER QUALITY
MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

SPEAKING NEITHER FOR NOR AGAINST L.D. 593

AN ACT TO RESTORE REGULAR EELGRASS MAPPING IN THE STATE

SPONSORED BY REPRESENTATIVE MCCREIGHT

BEFORE THE JOINT STANDING COMMITTEE
ON
ENVIRONMENT AND NATURAL RESOURCES

DATE OF HEARING:

MARCH 15, 2021

Senator Brenner, Representative Tucker, and members of the Committee, I am Brian Kavanah, Director of the Bureau of Water Quality at the Department of Environmental Protection. I am speaking neither for nor against L.D. 593.

I understand that an amendment to the bill may be introduced to expand the proposed mapping to include salt marshes as well as eel grass beds, so I've included information in my testimony to address this issue.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

website: www.maine.gov/dep

L.D. 593, and the proposed amendment, provide an important and comprehensive framework for an eel grass and salt marsh mapping program including: mapping procedures, the establishment of a mapping fund, a schedule to complete mapping along the entire Maine coastline, and the sharing of mapping data online and in reports to the Legislature. This is a sound framework and completion of these tasks would provide important data to inform and support a variety of state programs including the efforts to address climate change. The bill includes a fiscal estimate provided by the Department of estimated costs for implementation.

When salt marshes degrade, invasive species overtake native species, and the leading edges of marsh banks erode and collapse into tidal channels. When eelgrass degrades, tattered and fouled leaves break free and make way for thinner and thinner beds, and then barren mud. Long term residents of the Maine shoreline are often the first to notice these bellwethers of change in coastal environments, and don't hesitate to inquire as to why the water off their property has become so cloudy that they can't see the bottom while paddling, and also, why is the eelgrass disappearing?

Healthy coastal habitats including salt marshes and eelgrass beds provide critical functions in maintaining the nearshore marine ecosystem, and notably sequester carbon in soil and sediment. Conversely, degraded habitat can release greenhouse gases into the atmosphere. Knowledge of the location of these critical habitats and their health over time will inform actions to conserve and restore these important resources.

The Department of Marine Resources oversaw a coastwide mapping program for eelgrass during the 1990s and 2000s. For more than a decade, however, there has been no coastwide eelgrass mapping program that has documented the distribution of this important resource. The Maine Natural Areas Program has opportunistically mapped over 18,000 acres of salt marsh along Maine's coast, but has been unable to comprehensively document extent of fringing marshes, degraded marshes behind tidal restrictions or those to which access is unavailable. Both eelgrass and salt marsh

habitats are protected by Maine law as coastal wetlands and specifically, *Spartina* salt marshes are a rare natural community type.

The proposed mapping program would produce high resolution, plane-based, true color and infrared imagery, to field verify the presence or absence of eelgrass and salt marsh vegetation, to create maps of distribution, and to report on interannual changes to these habitats. Mapping outputs and reports would have myriad applications, not the least of which is to accurately enable calculation of existing sequestered carbon stocks, future carbon storage potential, and to identify areas most critical to protect and restore.

Strategy E, "Protect Natural and Working Lands and Waters", of the Maine Climate Council's 2020 "Maine Won't Wait" report, recommends increases in total acreage of conserved coastal areas, and a comprehensive coastwide inventory of carbon stocks. Prioritization for conservation and calculation of carbon stocks cannot efficiently or accurately occur using in some cases, coastal habitat information generated nearly 20 years ago.

In closing, the value of eelgrass and salt marsh habitat to Maine's marine environment and economy is undeniable. L.D. 593 would produce valuable data for a variety of programs and uses, including informed decision-making to help direct the state through the climate crisis.

Thank you for the opportunity to provide testimony. I and a member of my staff, Angela Brewer, Manager of the Department's Marine Unit, are available to answer questions now and at the work session.