Testimony of:
Save the Sound
a program of Connecticut Fund for the Environment

In Support of
SB 803, AAC AQUACULTURE JOB GROWTH
SB 805, AAC THE TAKING OF EASTERN OYSTERS
HB 6318, AAC THE CULTIVATION OF SEAWEED

Before the Environment Committee
February 11, 2013
Submitted by Leah Schmalz, Dir. of Legislative and Legal Affairs

Connecticut Fund for the Environment is a non-profit organization that, along with its regional program Save the Sound, works to protect and improve the land, air and water of Connecticut and Long Island Sound on behalf of its 5,500 members. We develop partnerships and use legal and scientific expertise to achieve results that benefit our environment for current and future generations.

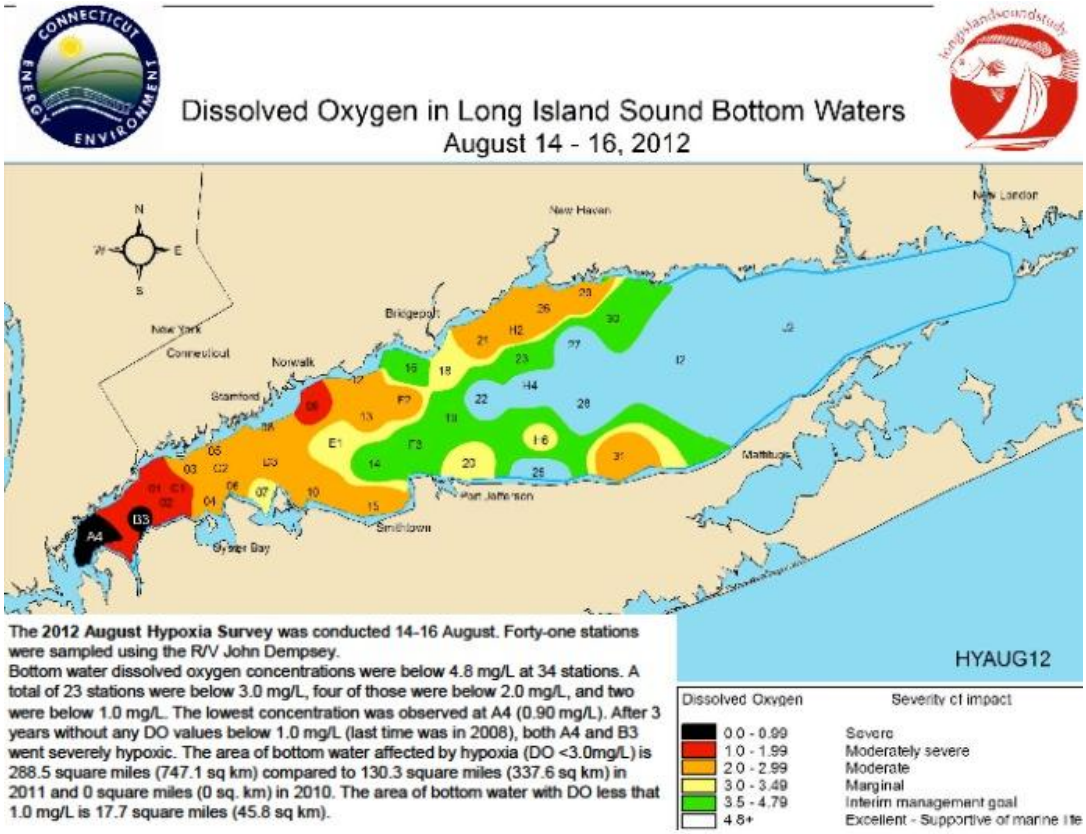
Dear Senator Meyer, Representative Gentile, and members of the Environment Committee:

Thank you for the opportunity to comment on Senate Bill 803, An Act Concerning Aquaculture Job Growth; Senate Bill 805, An Act Concerning the Taking of Eastern Oysters; and House Bill 6318, An Act Concerning the Cultivation of Seaweed.

Save the Sound, a program of Connecticut Fund for the Environment **supports the underlying intent of these bills**, which together will create jobs in the aquaculture industry, make Connecticut's oystering industry more competitive, and offer environmental benefits like cleaning Long Island Sound's waters. However, we agree with the Department of Agriculture ("DoAg"), that language clarification is needed in SB 805 and HB 6318 to ensure the goals of these bills are fully met. We also believe that the funds generated through the new, but minimal fees proposed in HB 6318 should be directed to the Habitat Restoration Matching Fund, a sub-account of the Long Island Sound Fund.

Scientists, regulators and Save the Sound concur: The greatest ecological limitation facing Long Island Sound is hypoxia, or oxygen deprivation, and reducing nitrogen pollution is the single most important action step we can take to restore the long term health of this ecosystem. While human misuse of the Sound began causing hypoxic conditions in the Sound for the first time about 150 years ago, its ecological impacts – and the low point for the Sound – came sharply into focus in August 1989, as fishermen and boaters from Port Jefferson to Norwalk to the East River witnessed an environmental disaster. Lobsters crawled onto land in an effort to breathe and massive schools of fish floated belly side up, caused by a complete anoxic crash.

Nitrogen is a nutrient that fuels the growth of certain types of phytoplankton, a phenomenon known as an algal bloom. When the algal blooms die and decompose, they rob the Sound of oxygen.



After computer modeling in the 1990s predicted that a significant reduction in nitrogen would greatly reduce overall adverse biological effects caused by hypoxia Sound-wide,[1] the region—particularly Connecticut—began investing in sewage treatment plant upgrades to eliminate excess nitrogen. While we continue to make strides on that front, the Long Island Sound community agrees that still more will be needed to restore Long Island Sound. To that end, two additional tools will be added to the nitrogen elimination strategy, along with continued work on sewage plant upgrades: non-point source pollution reduction and bio-extraction. It is this last tool of bio-extraction that is related to the three aquaculture bills before you today.

[1] In the late 1990's, EPA LISS modelers predicted the following ecological benefits from reducing nitrogen 58.5% to the following specific locations in the Sound:

In the western Narrows, death rates of larvae of marine life sensitive to hypoxia were predicted to be reduced by 67 percent; adverse impacts to fish abundance predicted to be reduced by 97 percent; adverse impacts on scup (porgy) abundance were predicted to be reduced by 61 percent, on winter flounder abundance by 99 percent, and effects on lobster abundance were predicted to be eliminated.

In the waters off of New Haven, mortality of sensitive larvae were predicted to be reduced by 65 percent and adverse impacts on fish abundance were predicted to be eliminated.

In the waters off of Stony Brook, NY, larval mortality were predicted to be reduced by an estimated 84 percent and adverse impacts on fish abundance were predicted to be eliminated.

Finally, while the LISS analysis focused on the open waters of the Sound, improvements were and are expected in harbors, embayments, and near shore waters as well. (Source: CT DEP and NY DEC, A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Oxygen in Long Island Sound, December 2000, p. 23).

Bioextraction is the natural process whereby farming and harvesting shellfish and seaweed results in the removal of nitrogen and other nutrients from water bodies. [2] A Long Island Sound 2009 modeling result presentation from HydroQual demonstrates that a major expansion of shellfish and macroalgae culture, coupled with our existing 58.5% Total Maximum Daily Load reduction mandate, could decrease wildlife mortality in the Western Sound's "dead zone".[3] In fact according to a workshop of international experts held in 2009 by the Long Island Sound Study, "modeling analysis has shown that nutrient bioextraction can potentially be very effective in improving dissolved oxygen levels and in helping to attain water quality standards in a cost effective manner. Further economic, ecological and modeling evaluation of nutrient bioextraction through a coordinated pilot program is a necessary next step to facilitate further exploration of nutrient bioextraction in Long Island Sound."[4]

These bills would promote increased shellfish and macroalgae production and harvesting in Long Island Sound, both of which would assist in the restoration of Long Island Sound's health.

SB 803 builds our state's shellfishing resources by allowing up to seventy-five percent of the host payments received under 26-194c (generally from energy projects traversing Long Island Sound) to be directed towards the Shellfish Fund established under 26-237b; provides authority to develop a management program to assist shellfishermen in relocating shellfish should a utility or public structure project displace their stock from undesignated areas, and rightfully directs any funds the state agency derives from such activities to the Shellfish Fund; helps create new small businesses in aquaculture by allowing citizens to cultivate shellfish on 25-acre parcels in Long Island Sound; and helps grow existing aquaculture enterprises by allowing the DoAg to assist with business development. All of these activities will have a positive effect on the number of filter feeders cultivated in Long Island Sound; each one will remove nitrogen when it is harvested.

SB 805 would remove the three-inch size limit on oysters that can be taken from the Sound. While we support the intent of the bill, we do not believe a complete repeal of 26-234b is warranted. Instead we suggest that "two" be substituted for "three" in the existing statute. Opening this size limit by one extra inch would allow small oystering operations to use leased shellfish beds that have been traditionally overlooked for oyster production thus allowing them to better compete in the market-place. Small, local oyster producers are ideally suited to supply oyster to boutique "raw bars," a rapidly-growing market segment; removing this obstacle will allow growth in the industry.

HB 6318 provides the DoAg with the authority to issue licenses and otherwise regulate seaweed farming in Long Island Sound—an industry with strong potential for profitable and environmentally-friendly growth. This authority will allow DoAg to locate farming where it will not conflict with licensed fishing area and other existing uses of the Sound, to protect the Sound from invasive plants, and to develop processing standards. Growth of this industry has the potential to do great good for Long Island Sound's water quality. Additional progress could be made if the proposed language were modified to direct the nominal fees acquired from this license to the Habitat Restoration Matching Subaccount of the state's Long Island Sound Fund. Save the Sound suggests the following language change:

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[2] http://longislandsoundstudy.net/wp-content/uploads/2010/06/Bioextraction_factsheet.pdf
[3] http://longislandsoundstudy.net/wp-content/uploads/2010/06/SWEMbiohrvstrprtv2_12_04_09.pdf
[4] http://longislandsoundstudy.net/wp-content/uploads/2010/06/Workshop-Summary-Report-Final.pdf

Sec. 2. (NEW) (Effective from passage) (a) The Commissioner of Agriculture may issue a nontransferable license, in the name of the state, under such policies as the commissioner may prescribe and for a period of not greater than five years and an annual license fee of twenty-five dollars per acre, for the planting and cultivating of seaweed in any area within Connecticut's coastal waters. Such fees shall be deposited in the Habitat Restoration Matching Subaccount established pursuant to 22a-27v (d). Any person who has a shellfishing ground lease authorized pursuant to section 26-194 or 26-257a of the general statutes shall not be required to remit such annual license fee. Any person licensed pursuant to this section may buy, possess, ship, transport or sell seaweed that meets the applicable requirements of section 22-11h and 22-11i of the general statutes, as amended by this act, and any regulation adopted pursuant to said sections 22-11h and 22-11i. For the purpose of this section, "seaweed" means seaweed, as defined in section 22-11i of the general statutes, as amended by this act.

In conclusion, Long Island Sound is one of the most densely populated waterbodies in the country, with nearly 1/10th of the U.S. population living within 50 miles of its shoreline. While tremendous progress has been made in improving the health of the Sound, major long term investment is needed to meet environmental objectives and improve the Sound's economic vitality. Supporting the Sound's shellfish and seaweed industries through SB 803, SB 805 and HB 6318 will bolster the economy, create new jobs, and put the estuary back on track towards a sustainable future.

Thank you for your consideration

Sincerely,

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