Maine Lobstering Union

IMLU Local 207: By Lobstermen, for Lobstermen

August 12, 2016

Hannah Dean
Maine Department of Marine Resources
21 State House Station
Augusta, ME 04333-0021

RE: Comments in Opposition to Proposed Permanent Amendment to Chapter 25.65 Lobster and Crab Closure in Penobscot River
Request for Public Hearing

Dear Ms. Dean:

This letter is submitted as the Maine Lobstering Union's Comments in Opposition to the proposed permanent rule amendment of Chapter 25.65 Lobster and Crab Closure in Penobscot River. While we continue to support DMR's imposition of the original closure area – located near the mobile sediment pool of methyl mercury identified by the federal court's PRMS Study experts -- there is no justification for the permanent closure of an additional 5.5 square mile area indicated by the 2014 DMR Study. In addition, this submission serves as a request for public hearing submitted by five (5) or more persons, including, but not limited to: Rock Alley (President, Maine Lobstering Union); Bill Coppersmith (Vice President, Maine Lobstering Union); Dave Sullivan (IAMAW Grand Lodge); Joel Pitcher (IAMAW Organizer, Maine Lobstering Union) and Kim Ervin Tucker (Legal Counsel, Maine Lobstering Union).

I. Summary of Argument

DMR's proposal to close an additional 5.5 square miles to all lobstering and crabbing has unjustifiably damaged the reputation for wholesomeness of all Maine lobsters – especially Penobscot Bay lobsters – including those from the Cape Jellison and Turner Point areas.[1]

This closure amendment is proposed in the absence of sound scientific support or legal authority under Maine law.

[1] The adverse impact of DMR's 2016 expanded closure is highlighted by articles like that in Investment Watch, **"***Mercury pollution contaminates Maine's lucrative lobster industry,"* by David Guttierrez, dated July 1, 2016. http://investmentwatchblog.com/mercury-pollution-contaminates-maines-lucrative-lobster-industry/

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DMR's 2014 study does not demonstrate that there are lobsters or crabs which have been adulterated by mercury or that are unfit for commercial sale or consumption in this new closure area. Contrary to DMR's assertions in the emergency and proposed permanent Rule Notices, the 2014 DMR Study provides no grounds to either issue a consumption advisory or to expand the existing closure area by 5.5 square miles "in order to protect public health due to the risk of mercury contamination in lobsters and crabs found in the mouth of the Penobscot River north of a line starting at the westernmost point of Perkins Point in the Town of Castine continuing in a northwesterly direction to the southern most point on Squaw Point (also known as Rocky Point) on Cape Jellison in the Town of Stockton Springs." See proposed permanent rule Notice.[2]

Rather than protecting the Maine Lobster brand by keeping tainted lobsters from market, the Maine DMR inexplicably is damaging the Maine Lobster brand by falsely claiming that lobsters that have demonstrably low levels of mercury as compared to all seafood deemed safe for consumption by the EPA and FDA, pose a public health risk that would require a consumption advisory and/or treatment as "adulterated" by consumers and the State government through imposition of a permanent closure of 5.5 square miles to commercial, recreational and sustenance lobster and crab fishing.

How can DMR justify permanently closing an area to all lobstering and crabbing when DMR acknowledges that the mean level of mercury found in lobsters from this area is less than the mean level of mercury in each can of albacore tuna found on every grocery store shelf in Maine and the U.S.? More importantly: *Why would DMR disparage the Maine Lobster brand in this way* when DMR acknowledges that (i) the levels of mercury found in the tail meat of lobsters in this area are less than that in a can of tuna; and (ii) the levels of mercury in the claw meat of those same lobsters and all crabs tested is less than 200 ng/g?!

All fish and shellfish in the United States contain trace amounts of mercury – whether wild caught or farm raised, in fresh or saltwater. Because of this reality, the EPA, FDA and State public health agencies have established guidance for the consumption of fish and shellfish for the general population and vulnerable populations (including pregnant women, nursing mothers, and children under the age of 8 (EPA says 6 years of age; the Maine CDC says 8 years of age). The FDA also has established an "action level" for treating fish and shellfish as "adulterated" food that is subject to legal action to remove it from the consumer marketplace. The FDA "action level" for lobster is 1,000 ng/g.

The levels of mercury found in all lobsters tested off Cape Jellison and Turner Point are significantly below the FDA action level – with the highest level of mercury found in a single lobster caught adjacent to the existing closure area being 807.6 ng/g. See e.g. Table 8, p. 15, 2014 DMR Study.

[2] http://www.maine.gov/dmr/laws-regulations/documents/WEB_RulemakingProposalPackage_Chapter25.65_07_13_2016.pdf

The EPA lists 107 ng/g as the mean level of mercury expected to be found in North American (Maine) lobsters -- other environmental groups list that level at as high as 310 ng/g. The mean level found in the 40 legal-size Cape Jellison lobsters collected in 2014 was 292.7 ng/g and the mean level found in the 21 legal size Turner Point lobsters was 302.6. To put this in perspective, a can of albacore tuna contains 350 ng/g of mercury.

The existing Maine CDC consumption advisory was last revised in June of 2009,[3] and states as follows:

Safe Eating Guidelines

- **Striped Bass and Bluefish: Pregnant and nursing women, women who may get pregnant, nursing mothers and children under 8 years** should not eat any striped bass or bluefish. **All other individuals** should eat no more than 4 meals per year.
- **Shark, Swordfish, King Mackerel, and Tilefish: Pregnant and nursing women, women who may get pregnant and children under 8 years of age** are advised to not eat any swordfish or shark. All other individuals should eat no more than **2 meals per month**.
- **Canned Tuna: Pregnant and nursing women, women who may get pregnant and children under 8 years of age** can eat no more than **1 can** of "white" tuna or **2 cans** of "light" tuna per week.
- **All other ocean fish and shellfish, including canned fish and shellfish: Pregnant and nursing women, women who may get pregnant and children under 8 years of age** can eat no more than **2 meals per week**.
- **Lobster Tomalley: No Consumption.** While there is no known safety considerations when it comes to eating lobster meat, consumers are advised to refrain from eating the tomalley. The tomalley is the soft, green substance found in the body cavity of the lobster. It functions as the liver and pancreas, and test results have shown the tomalley can accumulate contaminants found in the environment.

Maine CDC established an "action level for screening evaluations" in 2001 of 200 ng/g.[4] However, DMR is seemingly attempting to improperly use this 200 ng/g level used by the Maine CDC to assess when to issue a consumption advisory to noncommercial recreational fishermen in freshwater, as an action level to permanently shut down all commercial, recreational and sustenance lobster and crab fishing in an area of Penobscot Bay. Significantly, there is no immediate or long-term public health risk posed to any population from eating fish and shellfish with the mean mercury levels found in the proposed expanded closure areas (i.e. 292.7 to 302.6 ng/g) in 2014. At these modest

[3] See, Maine CDC website advisory for all Maine saltwater fish and shellfish at: http://www.maine.gov/dhhs/mecdc/environmental-health/eohp/fish/saltwater.htm

[4] https://www1.maine.gov/dhhs/mecdc/environmental-health/eohp/fish/documents/action-levels-writeup.pdf

levels of mercury, even vulnerable consumers can safely continue to use the levels of consumption already suggested in the existing Maine CDC consumption advisory above (1 to 2 meals per week). Thus, this closure is an abuse of the limited closure powers provided to DMR by Maine statute.

In the DMR 2014 Study, the tail meat of approximately 24 lobsters had levels of mercury over 200 ng/g. No lobsters were found with levels of mercury high enough to meet the FDA definition as adulterated 1,000 ng/g). The mean level of mercury in all claw meat in the 61 legal size lobsters tested (including the 24 lobsters with higher levels of mercury in their tail meat), and the mercury levels in all crabs tested were below 200 ng/g. Yet DMR claims in its rulemaking notice that the levels of mercury found in these 24 lobster tails with mercury levels in excess of 200 ng/g would justify issuing a consumption advisory. However, in lieu of issuing a consumption advisory – which could only apply to noncommercial recreational or sustenance fishermen -- DMR is ordering the draconian measure of **permanently closing this area to all commercial, recreational and sustenance lobster *and crab* fishing.**

This action by DMR exceeds the Department's statutory authority and is not justified for the following reasons:

- The only consumption advisory that the 2014 DMR test data arguably supports is an advisory to recreational (noncommercial) and sustenance fishermen in this area to limit the consumption of lobster tail meat from lobsters caught in this area to 1 serving per week by pregnant and nursing women, women who may get pregnant and children 8 years of age (i.e. the same consumption advisory applicable to a can of albacore tuna) – rather than 2 meals per week. However, issuing such an advisory in the circumstances here is outside the jurisdiction of the Maine CDC to issue, pursuant to 22 M.R.S.A. § 1696-I – which provides limited authority to Maine CDC to issue consumption advisories for persons consuming *freshwater and anadromous fish* caught in state waters by *noncommercial anglers.* This provision does not authorize Maine CDC to issue a consumption advisory for lobsters in Penobscot Bay nor to issue a consumption advisory relating to commercially caught shellfish.
- No public health threat is posed by consuming lobster tails with the levels of mercury found in the 2014 study in the Cape Jellison and Turner Point area[5] – where all lobsters tested had levels of mercury significantly below the level to be considered "adulterated" and all had levels consistent with and within the normal limits for fish and shellfish sold commercially in the United States.
- If, in an abundance of caution, DMR determined that it was in the interest of the fishery to expand the closure area to include the area where the two lobsters with highest mercury levels were collected – that expansion area would only need to include the roughly half-

[5] The range of mercury levels found in the 40 legal size lobsters tested from Cape Jellison was 43.0 ng/g to 807.6 ng/g, with a mean of 292.7 ng/g. The range of mercury levels found in the 21 legal size lobsters tested in 2014 from Turner Point area was 22.8 ng/g to 794.4 ng/g. The two lobsters with the highest levels of mercury from these areas were both caught in December of 2014, in the half-mile area immediately adjacent to the existing closure area where the mobile sediment pool exists.

mile area directly adjacent to the existing closure area – not the 5.5 square mile area proposed. The justification for a more limited expansion of the closure zone can be found in Figure 6b on page 21 of the 2014 DMR Study – which shows the location of lobsters caught during the study and confirms that the two lobsters caught with levels around 800 ng/g were very close to the existing closure area. However, even the level of mercury found in these two specimens does not pose an immediate or long-term public health threat nor meet the requirements for these lobsters to be classified as adulterated requiring their removal from the commercial market.

- In the absence of any public health threat, DMR is without statutory authority to close this area to lobstering or crabbing. See e.g. 12 M.R.S.A. § 6171-A, § 6172 and § 6192 (e.g. in the absence of any public health threat or emergency.

II. Interests of the Members of the Maine Lobstering Union

Maine has the highest quality lobsters in the world. Maine's lobster industry also is the economic and social foundation for our coastal communities' and the State's economy.

The Maine Lobstering Union ("IMLU") and its members are committed to preserving the environmental integrity of Maine's waters and the wholesomeness of the lobsters and crabs that are harvested by Maine lobstermen and sold to, and consumed by, the people of this State, the nation and the world. The members of the IMLU have been unwavering and zealous in their efforts to protect the public's health, the environment, and Maine's lobster resources, by opposing projects that will damage the pristine quality of Maine's waters and/or expose Maine's lobster resources to contaminants, including mercury – including projects that have been State-sponsored like the proposed Searsport "improvement" dredge. [6]

In addition to protecting the public health of, and the environment for, all Mainers, a paramount concern motivating the IMLU's efforts has been the *protection of* the *reputation for wholesomeness of all Maine lobsters*.

A determination that even one Maine lobster is adulterated by mercury contamination at a level above the EPA-FDA established "action level" for removal from the marketplace (i.e. 1.0 ppm or 1,000 ng/g) would have an adverse impact on the reputation for wholesomeness and marketability of *all Maine lobsters*.

[6] One focal point for the IMLU's efforts has been Penobscot Bay – where the IMLU has opposed the improvident proposals by the U.S. Army Corps of Engineers ("Corps") and the Maine Department of Transportation ("DOT") to conduct an unnecessary and ill-conceived million cubic yard dredge in Searsport. This proposed Searsport dredge project could contaminate the entire food web of Penobscot Bay by disturbing and re-suspending long-buried Mallinckrodt and HoltraChem mercury that the federal court's Penobscot River Mercury Study confirmed is buried in the upper Penobscot Bay down to the southern tip of Islesboro. As a result, if allowed to proceed as proposed, this dredge project would have devastating economic and environmental impacts. This project has been demonstrated to be unnecessary in an assessment done by Dawson & Associates which revealed that 97% of the navigational efficiencies and improvements sought by the million cubic yard (cy) dredge could be achieved by simply restoring the 35-foot depth in the existing channel and deepening the dock area to a depth of 45-feet (a process that would require removing only 60,000 cy of material).

One significant threat to maintaining the reputation for wholesomeness of Maine's lobsters is State action permitting any activity, by public of private entities, that will result in exposing Maine's lobsters or prime lobstering and crabbing grounds to new or additional mercury contamination (e.g. proposed Searsport dredge, and 5-10-2016 Mallinckrodt discharge permit amendment issued by DEP).

However, statements by DMR or other State officials that *exaggerate* and *mischaracterize* the current level of mercury in Maine lobsters can pose just as severe a threat to the reputation for wholesomeness of *all* Maine lobsters. Regrettably, we believe that the recently issued DMR "emergency" rule and proposed permanent rule amending DMR Chapter 25.65, exemplifies this latter type of threat to the reputation of all Maine lobsters.

While we support any effort to protect the public and Maine lobsters from actual mercury contamination, we submit that the recent expansion of the closure area in Penobscot Bay was not necessary in its scope and in the alleged "emergency" nature of its implementation. In fact, issuing the so-called "emergency" rule was an exaggerated response by DMR, based on a mischaracterization of the results of the 2014 DMR Mercury Study (2014 Study). We believe that the information provided with this comment letter and in the DMR Study itself demonstrates that the emergency closure amendment should be rescinded or repealed immediately and the proposal to make this additional closure permanent should be abandoned.

Unless the emergency rule is rescinded and the proposed permanent rule abandoned immediately -- based on the proper characterization of the 2014 data -- this closure will continue to do significant harm to the reputation for wholesomeness of all Maine lobsters – especially all Penobscot Bay lobsters. Further, this closure will continue to do harm to the Penobscot Bay lobster fishery, the Maine Lobster brand, and the economy of the Midcoast region – especially in the area of the expanded closure.

In addition to the direct adverse economic impact of this closure on commercial lobstermen and crabbers in Penobscot Bay and beyond (an impact which was ignored in the DMR rule analysis), this closure has, and will continue to inflict significant economic harm on landowners who own property in the area adjacent to the expanded closure areas. Property owners in the vicinity of the closure have been damaged by reductions in the marketability of waterfront land and homes and resulting diminution in the value of properties. The fiscal impact on landowners, realtors, and potentially the Town of Stockton Springs and Castine, was never considered by DMR in its rulemaking assessment of fiscal impacts, in violation of 5 M.R.S.A. § 8057-A. Indeed, the rulemaking Summary issued for this proposed rule amendment confirms that the department failed to consider any of the fiscal impacts of this closure on land owners in Stockton Springs or the Castine area or on lobstermen and crabbers who fish in the expanded area.

Failure to consider any fiscal impacts from adoption of this proposed rule, other than those fiscal impacts related to DMR's implementation of the proposed rule, violates the express requirements of the Maine Administrative Procedures Act.

III. The Levels Of Mercury Found In 2014 Pose No Public Health Threat And Do Not Justify Either Modifying The Existing Maine CDC Consumption Advisories or Issuing New Consumption Advisories

A. All Freshwater and Saltwater Fish Contain Mercury

First, to put the 2014 DMR Mercury Study findings into proper perspective, it is important to review the facts about mercury in the fish and shellfish that we consume.

The FDA explains the facts relating to mercury in fish and shellfish *nationwide* as follows:

The Facts

Fish and shellfish are an important part of a healthy diet. Fish and shellfish contain high-quality protein and other essential nutrients, are low in saturated fat, and contain omega-3 fatty acids. A well-balanced diet that includes a variety of fish and shellfish can contribute to heart health and children's proper growth and development. So, women and young children in particular should include fish or shellfish in their diets due to the many nutritional benefits.

However, ***nearly all fish and shellfish contain traces of mercury.*** For most people, the risk from mercury by eating fish and shellfish is not a health concern. Yet, some fish and shellfish contain higher levels of mercury that may harm an unborn baby or young child's developing nervous system. The risks from mercury in fish and shellfish depend on the amount of fish and shellfish eaten and the levels of mercury in the fish and shellfish. Therefore, the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) are advising women who may become pregnant, pregnant women, nursing mothers, and young children to avoid some types of fish and eat fish and shellfish that are lower in mercury.

What is mercury and methylmercury?

Mercury occurs naturally in the environment and can also be released into the air through industrial pollution. Mercury falls from the air and can accumulate in streams and oceans and is turned into methylmercury in the water. It is this type of mercury that can be harmful to your unborn baby and young child. Fish absorb the methylmercury as they feed in these waters and so it builds up in them. It builds up more in some types of fish and shellfish than others, depending on what the fish eat, which is why the levels vary.

Is there methylmercury in all fish and shellfish?

Nearly all fish and shellfish contain traces of methylmercury. However, larger fish that have lived longer have the highest levels of methylmercury because they've had more time to accumulate it. These large fish (swordfish, shark, king mackerel and

> tilefish) pose the greatest risk. Other types of fish and shellfish may be eaten in the amounts recommended by FDA and EPA.

See, FDA Brochure titled, "*What You Need to Know About Mercury in Fish and Shellfish,*" dated March 2004 (emphasis supplied).[7]

B. How does the level of mercury found by DMR in 2014, in Cape Jellison and Turner Point Lobster and Crabs compare to mercury levels typically found in North American lobsters and other fish?

Within publicly available government sources, including the EPA, FDA and other public health organizations, there is a significant disparity in the mean level and range of mercury reportedly routinely and generally found in the tissue of North American lobsters (Maine lobsters).

For example, the FDA report titled "Mercury Levels in Commercial Fish and Shellfish (1990-2010)," indicates that the mean concentration of mercury in North American lobsters is 0.107 ppm (107 ng/g),[8] while the EPA's 1997 Mercury Study Report to Congress indicates an average of 232 ng/g of mercury in North American lobsters.[9] Further, even higher concentrations of mercury are reported for North American lobsters on websites like the Mercury Policy Project, Perinatology.org, and NRDC – all of which report that the mean mercury concentration in "American" or "North American" and Canadian lobsters is 0.310 ppm or 310 ng/g. Indeed, these same sites report a range of mercury in North American lobsters of between 0.05 and 1.31 ppm (50 to 1,310 ng/g).[10]

Because all freshwater and saltwater fish and shellfish contain mercury, the EPA, FDA and State health authorities have issued consumption advisories to provide guidance to all consumers of fish on the amount of meals containing fish that can be safely eaten per week or month. The number of meals and the size of portions must be adjusted by the weight of the consumer, with pregnant women, women who are nursing, children under the age of six (Maine says 8), and certain other vulnerable populations requiring even greater consumption limits.

In June 2014, the EPA and FDA updated their draft advice on fish consumption. In the revised EPA-FDA draft advice, the two agencies have concluded that the following types of people *should eat more fish* that is lower in mercury in order to gain important developmental and health benefits:

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[7] http://www.fda.gov/food/resourcesforyou/consumers/ucm110591.htm

[8] http://www.fda.gov/Food/FoodborneIllnessContaminants/Metals/ucm115644.htm

[9] See, Table 4-48, *"Summary of Mercury Concentrations in Fish Species*," EPA Mercury Study Report to Congress, p. 151 of 293.
https://www3.epa.gov/ttn/caaa/t3/reports/volume4.pdf

[10] http://www.perinatology.com/exposures/Maternal/seafood.htm

http://mercuryfactsinfish.org/wp-content/uploads/2010/02/FDADataMercuryLevelsFishAndShellfish.pdf

https://www.nrdc.org/sites/default/files/walletcard.pdf

- Pregnant and breastfeeding women;
- Women who might become pregnant; and
- Young children.

This revised advice was prompted in part by an analysis, conducted by the FDA, of seafood consumption data from over 1,000 pregnant women in the U.S. This study found that 21% of the women ate no fish in the previous month, and those who ate fish ate far less than what is recommended in the 2010 Dietary Guidelines for Americans.[11]/[12] The Maine CDC consumption advisory was last updated in June of 2009 and does not reflect the current EPA and FDA guidance.

C. EPA Guidance on Issuing Consumption Advisories

In addition to the EPA-FDA dietary guidelines for the general public on fish and shellfish consumption, the U.S. Environmental Protection Agency has issued a variety of guidance documents to help state, local, regional and tribal environmental health officials who are responsible for developing and managing fish consumption advisories.[13]

The four-volume guidance documents in the EPA Series, titled "*Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories,*" (EPA, 2000), are intended to provide: "guidance to state, local, regional, and tribal environmental health officials responsible for designing contaminant monitoring programs and issuing fish and shellfish consumption advisories."[14]

The four major components EPA identified as critical to the development of a consistent risk-based approach for a standardized assessment of contamination in fish and shellfish and for issuing fish advisories include: (i) standardized practices for sampling and analyzing fish; (ii) standardized risk assessment methods; (iii) standardized procedures for making risk management decisions; and (iv) standardized approaches for communicating risk to the general public.

According to EPA, this document series includes:

Volume 1: Fish Sampling and Analysis
Volume 2: Risk Assessment and Fish Consumption Limits
Volume 3: Overview of Risk Management
Volume 4: Risk Communication

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[11] https://www.epa.gov/fish-tech/epa-fda-advisory-mercury-fish-and-shellfish

[12] http://www.cnpp.usda.gov/dietary-guidelines

[13] https://www.epa.gov/fish-tech/epa-guidance-developing-fish-advisories

[14] EPA Guidance Series, Executive Summary:
https://www.epa.gov/fish-tech/executive-summary-national-guidance

> Volume 1 provides information on sampling strategies for a contaminant monitoring program. In addition, information is provided on selection of target species; selection of chemicals as target analytes; development of human health screening values; sample collection procedures including sample processing, sample preservation, and shipping; sample analysis; and data reporting and analysis.
>
> Volume 2 provides guidance on the development of appropriate meal sizes and frequency of meal consumption (e.g., one meal per week) for the target analytes that bioaccumulate in fish tissues. In addition to the presentation of consumption limits, Volume 2 contains a discussion of risk assessment methods used to derive the consumption limits as well as a discussion of methods to modify these limits to reflect local conditions. Volume 2 also contains toxicological profiles for each of 25 target analytes.
>
> Volume 3 provides an overview of a risk management framework. This volume provides framework for selecting and implementing various options for reducing health risks associated with the consumption of chemically contaminated fish and shellfish. Using a human health risk-based approach, states can determine the level of the advisory and the most appropriate type of advisory to issue. Methods to evaluate population risks for specific groups, waterbodies, and geographic areas are also presented.
>
> Volume 4 provides guidance on risk communication as a process for sharing information with the public on the health risks of consuming chemically contaminated fish and shellfish. This volume provides guidance on problem analysis and program objectives, audience identification and needs assessments, communication strategy design, implementation and evaluation, and responding to public inquiries.

Id.

EPA has emphasized that: "**all four documents be used together, since no single volume addresses all of the topics involved in the development of fish consumption advisories**." *Id.* (emphasis supplied).

D. DMR is attempting to close this additional area of Penobscot Bay to commercial, recreational and sustenance lobstering and crabbing based on a so-called "action level for screening evaluations" developed by MeCDC in 2001 that is contrary to the current FDA "action level" for mercury in lobster and which was based on outdated and superseded EPA Guidance Documents from 1993 and 1997

The Maine CDC did not use the EPA's 4-volume series in developing the so-called "action level for screening evaluations" of 200 ng/g, that DMR now references to justify the June 21, 2016 expanded closure emergency rule (that DMR now proposes to make *permanent*). Rather, the Maine CDC's 2001 "action level for screening evaluations" is based on the out-dated and superseded 3-Volume EPA "Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories, (EPA

1993, 1997 EPA). The Maine CDC document, titled "Bureau of Health Fish Tissue Action Levels," was last updated in February of 2001.[15]

This Maine document states in relevant part that:

> Following USEPA's three volume Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories, (EPA 1993, 1997) the Maine Bureau of Health uses action levels as a guide to determine the need for developing fish consumption advisories. Action levels are concentrations of a contaminant in fish tissue below which there should be negligible risk of toxicity at a consumption rate of one meal a week. Action levels may be developed for several different toxicological endpoints (cancer, developmental, and other non-cancer effects). Concentrations of contaminants in fish tissue are compared to the appropriate action levels. When fish tissue concentrations exceed action levels, the development of Fish Consumption Advisories are considered. This document briefly describes the derivation of fish tissue action levels and includes a tabulated summary of chemical specific fish tissue action levels currently in use by the Bureau of Health. . . .

2001 Bureau of Health Fish Tissue Action Levels, pp. 1.

A Chart is attached to this 2001 explanatory document titled: "FISH TISSUE ACTION LEVELS FOR SCREENING EVALUATION (Fillet, wet weight)." This chart was issued and last updated by the Environmental Toxicology Program of the Maine Bureau of Health in May of 2001. In the column for "Methylmercury – developmental" this chart states that the "NonCancer Action Level" is 0.2 ppm [200 ng/g].

The 2001 Bureau of Health explanatory document and chart are apparently the origin of the so-called "action level" of 200 ng/g that formed the basis for DMR asserting that:

> PRINCIPAL REASON(S) OR PURPOSE FOR PROPOSING THIS RULE: . . . Recent confirmation data collected by the Department [of Marine Resources] and analyzed by the Maine Department of Health and Human Services, Center for Disease Control (Maine CDC) indicates that lobsters in this area may have mercury levels above the Maine CDC action level and would warrant a consumption advisory for the most sensitive populations."

DMR Rule-Making Fact Sheet for June 21, 2016 Amendment of Chapter 25.65.

[15] https://www1.maine.gov/dhhs/mecdc/environmental-health/eohp/fish/documents/action-levels-writeup.pdf

Allegedly to avoid the adverse consumer response to having such a consumption advisory issued to sensitive populations consuming lobsters and crabs caught by noncommercial recreational fishermen in the Cape Jellison and Turner Point areas, DMR proposes to permanently close this 5.5 square mile area to *all commercial, recreational and sustenance lobstering and crabbing*. However, 22 M.R.S.A. § 1691-I only authorizes the Maine CDC to issue a consumption advisory regarding any health threats that may exist for persons consuming freshwater and anadromous fish caught in state waters by noncommercial anglers. Thus, ***Maine CDC has no statutory authority to issue the consumption advisory that DMR claims is warranted by the data in DMR's 2014 Study but which it supposedly seeks to avoid by closing this area permanently to lobstering and crabbing.***

In fact, no alteration in the existing Maine CDC or EPA-FDA consumption advisories relating to fish and shellfish would be warranted by the levels of mercury found in the 61 lobsters and 168 crabs collected in 2014 and tested as part of DMR's Study. And, under Maine law, no consumption advisory could be issued by the Maine CDC in these circumstances. Accordingly, the closure of this new area – to avoid a consumption advisory that cannot be issued -- is an exaggerated response to a threat and emergency that do not exist.

IV. THERE IS NO EMERGENCY OR PUBLIC HEALTH RISK

Here, there is no emergency that necessitates permanently (or temporarily) expanding the lobster and crab closure area at this time, since:

(a) The 2014 DMR Study confirms that the mean level of mercury found in lobsters and crabs in the proposed expanded closure area, poses no immediate *or long-term* health risk to the general public or vulnerable (sensitive) populations;[16]

(b) The 2014 DMR study confirms that the mean level of mercury found in crabs, in the proposed expanded closure area, poses no immediate or long-term health risk to the general public or vulnerable populations *at any time of year* and is below even the 200 ng/g level DMR is attempting to use as a threshold for it closure action – DMR's administrative convenience is not a justification for closing this area to crabbing in the absence of any scientific and public health basis for such an "emergency" closure of crabbing -- even if some closure of lobstering in the half-mile area closest to the existing closure zone is justified during some months of the year; and

(c) An alleged lack of funding to complete the 2015 DMR Study is not a legitimate ground for closing a fishing area to all lobstering and crabbing on an emergency basis or permanently – especially when the level of mercury in all crabs has been found to be less than 200 ng/g.[17]

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[16] See 5 M.R.S.A. § 8054, sub-§ 2 states in relevant part that: "No **emergency** may be found to exist when the primary cause of the **emergency** is delay caused by the agency involved."

[17] It is our understanding that DMR is seeking and may have obtained funding or a mechanism to have the 2015 samples tested by the federal court's experts, at Mallinckrodt's expense. However, there remains no justification for this closure to continue while that work is done, especially the closure relating to crabbing.

V. Grounds for Opposition

While the Executive Board and members of the Maine Lobstering Union (IMLU) strongly support the closure of areas to fishing where active methyl mercury contamination exists – like the original 7+ square mile closure area in which complex currents at the mouth of the Penobscot River near South Verona Island create a mobile sediment pool in which mercury dumped by Mallinckrodt and HoltraChem continues to create high levels of methyl mercury contamination – we must oppose proposed closures which are contrary to sound science, EPA and FDA guidelines, and express limits in Maine law -- like the new 5.5 square mile closure now being proposed.

The 2014 DMR Study data does not justify closing 5.5 square miles of additional area to all lobstering and crabbing. At best, the 2014 DMR Study data supports expanding the closure area by approximately a half-mile zone near Fort Point Ledge, for the period December through June.

Instead, immediate repeal of the emergency and proposed amendments to Chapter 25.65, which expand the 2014 Mallinckrodt-caused closure area, is in the public's interest and is required based on the following:

- DMR's own 2014 Study data confirms that the mean levels of mercury in lobsters and crabs in the new closure area between Cape Jellison and Turner's Point:
  - (i) Do not pose a threat to public health pursuant to the standards issued by the U.S. Environmental Protection Agency ("US EPA") of FDA and the Maine Center for Disease Control and Prevention Maine CDC ("Me-CDC");
  - (ii) Do not justify any amendment to the existing fish and shellfish consumption advisories issued by the U.S. EPA, FDA or Me-CDC and cannot result in any new consumption advisory from Maine CDC, pursuant to 22 M.R.S.A. § 1691-I; and
  - (iii) Do not justify DMR issuing an emergency or permanent rule amendment expanding the existing closure area by 5.5 square miles.
- The 2014 DMR Study conclusions are not based on sound science, because the 2014 Study, contrary to EPA guidelines for conducting a reliable study of this nature:
  - (i) Failed to collect and assess the target number of samples required under the DMR Study's design protocol;
  - (ii) Made conclusions based on varying sample sizes that were too small in total numbers to provide reliable results justifying either an emergency or permanent closure of this area to lobstering and crabbing;
  - (iii) Included specimens from varying size ranges and maturity, including non-legal size lobsters, but only used data from test results for the insufficient number of legal-sized lobsters collected; and
  - (iv) Exaggerated the level of mercury by testing disparate numbers of individual lobsters collected in 3 time frames (April and June combined, August separately,

and October and December combined), and considering individual lobsters' tails separately from their claws, rather than following the EPA guidelines which encourage State testing agencies to put the meat from all specimens collected during a specific collection period together in a single composited sample that is blended together prior to testing to obtain a more accurate mean level of mercury in fish and shellfish in a specific test area.

Specifically, the 2014 DMR Study demonstrates the following:

- The study design established a target number of lobsters and crabs to study of 15 legal-size specimens in the Cape Jellison area and 20 legal-size specimens in the Turner Point area -- however this target was never met for lobsters in either area and often not met for crabs (Table 5, p. 13, 2014 DMR Study);
- Only 97 lobsters were collected in total from the combined closure area and only 61 of those were of legal size and used to base the conclusions of the 2014 study and this proposed rule – far short of the target number of 175 lobsters that the study was designed to collect and study from the Cape Jellison and Turner Point areas (*Id.*);
- Rather than the target number of 75 lobsters, only 58 lobsters were collected from the Cape Jellison area (1 in April, 15 in June, 12 in August, 21 in October, and 9 in December) – of those, only 40 were of legal size and used to base the conclusions of the 2014 study (*Id.*);
- Of the 58 lobsters collected from Cape Jellison, only 40 lobsters were of legal size (Table 6, p. 13, 2014 DMR Study[18];
- The mean level of mercury in the 40 legal-size lobsters caught and individually tested in the Cape Jellison area was 292.7 ng/g in their tail meat, but only 139.2 ng/g in their claw meat *when averaged over all 5 test periods* (April, June, July, October and December) (Table 8, p. 15, 2014 DMR Study);
- In late Summer (August) even the tail meat of the 11 legal sized lobsters tested from the Cape Jellison area had a mean mercury level of only 205 ng/g (Table 8, p. 15, 2014 DMR Study);
- The conclusions regarding the amount of mercury in lobsters in Cape Jellison from April and June was based on only 5 legal sized lobsters and 11 legal sized lobsters in August (Table 10, p. 17, 2014 DMR Study);
- The level of mercury in lobsters in the Cape Jellison area varied wildly – ranging from 43.0 ng/g to 807.6 ng/g (Table 8, p. 15 (2014 DMR Study) – however, no lobsters caught in this area in 2014 had a level of mercury that was high enough to

[18] U.S. EPA guidelines state that in conducting studies to determine whether there is contamination in fish and shellfish, taking specimens that are of legal size is the only relevant size to test when determining whether there is a public health basis for issuing a consumption advisory or taking other action in response to contamination found in fish and shellfish.

meet the FDA definition for "adulterated" shellfish (i.e. 1,000 ng/g for lobsters);

- The outlier lobster with the highest level of mercury collected from the Cape Jellison area (807.6 ng/g), was collected immediately adjacent to the existing closure area where the mobile sediment pool is located (Figure 6b, p. 21, 2014 DMR Study);
- Rather than the target number of 100 lobsters, only 39 lobsters were collected from the Turner Point area (0 in April, 16 in June, 2 in August, 15 in October, and 6 in December) (Table 5, p. 13, 2014 DMR Study);
- Of the 39 lobsters collected from Turner Point, only 21 were of legal size (Table 6, p. 13, 2014 DMR Study);
- The mean level of mercury in the 21 legal-size lobsters caught in the Turner Point area was 302.6 ng/g in their tail meat, but only 184.4 ng/g in their claw meat *when averaged over all 5 test periods* (April, June, July, October and December (Table 8, p. 15, 2014 DMR Study);
- The level of mercury in lobsters in the Turner Point area varied wildly – ranging from 22.8 ng/g to 794.4 ng/g (Table 8, p. 15 (2014 DMR Study) – however, no lobsters caught in this area in 2014 had a level of mercury that was high enough to meet the FDA definition for "adulterated" shellfish (i.e. 1,000 ng/g for lobsters);
- The outlier lobster with the highest level of mercury collected from the Turner Point area (794.4 ng/g), was collected within approximately a ½ mile from the existing closure area where the mobile sediment pool is located (Figure 6b, p. 21, 2014 DMR Study);
- The conclusions regarding the amount of mercury in lobsters in Turner Point from April and June was based on only 4 legal sized lobsters and ONE (1) legal sized lobster in August (Table 10, p. 17, 2014 DMR Study);
- The 2014 DMR study is based on testing fewer than a third of the specimens tested by the federal court's experts in the Penobscot River Mercury Study and in all instances DMR found higher levels of mercury than the court's experts because they collected lobsters during April, June and December – periods when little or no commercial or recreational lobstering is taking place in this area, but during which lobsters that could have stayed in this area for extended periods over the winter and spring would be likely to be present (Tables 11 and 12, pp. 19 and 22, 2014 DMR Study);
- The total mean level of mercury in crabs – in both the original closure area and new closure areas (Turner Point and Cape Jellison) – is below even the 200 ng/g level (Table 13, p. 23 2014 DMR Study); and
- The level of mercury found in crabs during all 5 sampling periods in the Cape Jellison and Turner Point areas is well below 200 ng/g – ranging from 40.4 ng/g to 161.5 ng/g – accordingly there is no legal, scientific or public health justification for closing these areas to crabbing, on an emergency or permanent basis.

In sum, the levels of mercury found during the 2014 DMR Mercury Study in lobsters and crabs in the newly closed area are:

(i) Too low to pose a public health risk to any population (general, vulnerable, pregnant, old or young);

(ii) Too low to justify issuing an amendment to the existing Maine CDC consumption advisories already applicable to *all* fish and shellfish in Maine;

(iii) Cannot be the subject of a consumption advisory issued by the Maine CDC, pursuant to 22 M.R.S.A. § 1691-I; and

(iv) Too low to justify closing this area to commercial, sustenance or recreational lobster and crab fishing under any federal or State guideline, regulation or law.

Additionally, we submit that DMR has abused its emergency rulemaking authority by imposing this closure through "emergency rule" when these results are from 2014. Delays by the Department in testing the 2014 and 2015 samples (a process that would take days or weeks not months or years) -- and refusal to test the 2015 samples collected and frozen, on the alleged ground of a "lack of funding to test" -- does not justify a claim of emergency in 2016. Further, as noted above, the levels of mercury found do not constitute an immediate – or long-term -- threat to public health. Accordingly, the statutory basis for issuing an emergency closure did not exist. Rather, DMR abused its emergency closure police powers as a mechanism to improperly circumvent the due process requirements in the Maine Administrative Procedures Act (APA). This abuse should not now be compounded by making the improper closure permanent, in the absence of the limited statutory basis for issuing a closure order in 12 M.R.S.A. § 6171-A, § 6172 and § 6192 (e.g. in the absence of any public health threat or emergency).

Furthermore, it is unconscionable for DMR to impugn the reputation of Penobscot Bay lobsters and close a significant area to lobstering and crabbing on an "emergency basis" and then claim that a "lack of funding" will prevent DMR and Maine CDC from testing the 2015 samples already collected or to do additional annual testing in 2016 – converting this closure to a permanent closure. DMR could obtain funding to test from Mallinckrodt – the source of this contamination according to the federal court in Bangor and the Court's experts. Alternatively, DMR could use a portion of the funds collected from lobstermen from the sale of trap tags to fund this important testing – crucial for the preservation of the reputation of Maine Lobsters. However, DMR is acting to effectively make this closure permanent by refusing to expend the resources needed to accurately assess the level of mercury in these areas of the upper estuary and the entire Penobscot Bay region, as well as all areas along the Maine Coast, to offset the damage done by the State's exaggerated claims of public health risk – made merely to circumvent normal due process requirements in the APA.

The closure of fishing grounds to commercial, sustenance and recreational harvesting, or the removal of fish from the marketplace, is an extraordinary exercise of police power by the State and is only justified under Maine or federal law when the fish or shellfish in or from that area can be

considered "adulterated" – posing a significant public health risk. See, e.g. 12 M.R.S.A. § 6171-A, sub-§§(1)(A) and (4-A); § 6172; and § 6192, sub-§(1)(A). A mean level of mercury of 292.7 ng/g is – *as DMR acknowledges* – **less mercury than is found in a typical can of albacore tuna (350 ng/g) found on the shelves of every supermarket and convenience store in Maine and the United States**. Accordingly, a finding of a 292.7 mean level of mercury in 61 legal-size lobsters, *collected in 2014* does not justify issuing an "emergency" closure of 5.5 square miles of fishing grounds to lobstering ***and crabbing*** in 2016 and certainly does not justify a permanent closure of this 5.5 square mile area to lobstering and crabbing (as now proposed) – ***since the level of mercury in lobsters and crabs this area pose no public health risk***.

Lobstermen up and down the coast have received concerned inquiries from local residents and visitors to Maine all Summer as a result of DMR's improvident and improper closure action and DMR's exaggerated claims of public health risk from levels of mercury that are significantly below the level of mercury found in the most popular fish consumed in the United States (e.g. tuna, grouper, mackerel). Where, as here, the facts and law do not support DMR's claims of public health risk and the necessity for a closure DMR's action must be challenged as an abuse of discretion exceeding its rulemaking and regulatory authority.

CONCLUSION

Based on the information provided above, we are asking that DMR rescind the emergency amendments to closure rule (Chapter 25.65) and withdraw the proposed permanent rule. In the alternative, pursuant to 12 M.R.S.A. § 6192(1)(B), this letter is submitted on behalf of more than five persons, including members of the Maine Lobstering Union, to request that the Commissioner conduct a public hearing regarding the need to rescind the June 21, 2016 "Emergency" Rule amending 06-096 C.M.R. § 25.65 and withdraw the proposed permanent rule change.

Sincerely,

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