June 18, 2020

Dr. John Quinn, Chairman
Mr. Tom Nies, Executive Director
New England Fishery Management Council
50 Water Street, Mill 2
Newburyport, MA 01950

RE: Amendment 23

Dear Dr. Quinn and Mr. Nies:

On behalf of Environmental Defense Fund's (EDF) millions of members and supporters, we write again to support the New England Fishery Management Council's work on Amendment 23 to the Northeast Multispecies (Groundfish) Fishery Management Plan (FMP) to reform monitoring in the groundfish fishery and to urge expeditious final action on this critically important amendment. This comment letter builds on EDF's previous comments dated April 11, 2019 and June 6, 2019 and responds to the Alternatives presented to and approved by the Council at its January 2020 meeting. By taking final action on Amendment 23, the Council can take a crucial step towards recovery of the groundfish fishery.

We want to thank the Council members, NMFS leadership, and the countless stakeholders who have been engaged in developing this action. We recognize that it has been difficult, particularly with the backdrop of ongoing economic challenges for the fleet and the unprecedented circumstances brought on by the COVID-19 pandemic.

Even as the Council has had to cope with COVID-related challenges that have made public discourse difficult, this amendment is well established and primed for final consideration. We support moving Amendment 23 forward to a final decision at a special meeting in July, rather than waiting for when meetings can resume in-person. Such a time could be months in the future, and allowing for the Council to make final decisions on important policies such as Amendment 23 amidst the new normal of remote, web-based interactions – including public comment hearings, committee meetings, and even full council decision-making – will be necessary to keep the important work of fisheries management moving forward. Despite the challenging recent conditions, the Council received more than 800 written comments on the Draft EIS for Amendment 23, and nearly 140 people attended the Amendment 23 webinar-based public hearings. Given the public has been able to adapt to virtual commenting, we urge the Council to stay the course in using web-based Council deliberations and public hearings in finalizing Amendment 23.

This sentiment was shared by members of the Groundfish Committee during its June 10, 2020 meeting in response to a motion mandating in-person public hearings prior to final consideration. Councils, the Council Coordinating Committee, and NOAA are becoming ever more familiar with holding meetings and hearings and conducting business online. Amendment 23 can be debated and voted on virtually without sacrificing public input.

Amendment 23 has already been years in prolonged deliberation and subjected to countless delays. It was initiated four years ago, and the purpose and need for action has been resoundingly established: without sufficient monitoring and reliable data, fishery managers cannot effectively or legally manage the fishery,[1] and it is the lack of this reliable data that has placed key stocks at risk and exacerbated the economic duress experienced by groundfish fishermen throughout the region.

We commend the Council and NMFS leadership for your votes setting as the Preferred Alternative a suite of actions that include a 100% monitoring target, as well as providing for EM to be incorporated into the improved monitoring system. EM not only can be more cost effective, it can lay the foundation for a broad array of other data benefits that will be increasingly more important as stochastic changes continue to affect fish stock behaviors: new and more timely methods of data collection will be critical to helping fishermen adapt.

We urge the Council to take up final consideration of Amendment 23 in a special session in July and to adopt those alternatives that (1) require 100% monitoring for groundfish trips,[2] and (2) approve and incentivize the use of electronic monitoring (EM) in place of human observers.[3]

One hundred percent coverage is necessary to cure chronic and systemic underreporting of catch, which in turn precludes the ability to ensure compliance with statutory mandates. The Council has received no analysis or information that would indicate any lower number would achieve the purpose and need of Amendment 23, as well as the underlying statutory requirements. While EM requires an initial investment to implement, new studies confirm that fishery participants can realize long-term economic benefits by transitioning from human observers to EM.

100% Coverage Is Necessary to Comply with MSA Requirements

MSA National Standard 1 requires management measures to prevent overfishing while achieving optimum yield on a continuing basis.[4] All fishery management plans (FMPs) and amendments to these plans must contain measures "necessary and appropriate for the conservation and management of the fishery, to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery."[5]

[1] As related to the Council's statutory obligations under the Magnuson-Stevens Act ("MSA"), particularly the requirements to have annual catch limits that prevent overfishing and rebuild overfished stocks (16 U.S.C. §§ 1851(a)(1), 1853(a)(1)(A), 1853(a)(15)).
[2] Sector Monitoring Tools Options 2 and 3 (4.1.2.2, 4.1.2.3).
[3] Sector Monitoring Standard Option 2, Sub-option 2D (4.1.1.2.4).
[4] 16 U.S.C. § 1851(a)(1).
[5] *Id*. § 1853(a)(1)(A); *see also id*. § 1854(e) (setting forth specific requirements to rebuild overfished stocks).

FMPs must also contain annual catch limits with accountability measures to ensure catch limits are not exceeded and overfishing does not occur.[6] For these purposes, "catch" includes "fish that are retained for any purpose, as well as mortality of fish that are discarded."[7] In addition, all FMPs must also "assess and specify the nature and extent of scientific data which is needed for effective implementation of the plan."[8]

Taken together, these provisions require the Council to adopt management measures "necessary" to ensure that limits on catch (including landings and dead discards) are not exceeded and overfishing does not occur, and to specify the data "needed" to ensure the effectiveness of those measures.[9]

The Council has long recognized "the necessity to accurately monitor sector catch—both landings and discards."[10] Amendment 16 noted that "higher levels of observer coverage are more effective at collecting the data necessary to monitor groundfish landings and discards . . . and reducing the potential of an observer effect that could potentially compromise data collected with less than 100-percent coverage."[11]

The Council did not require 100% monitoring under Amendment 16 despite finding it more effective at collecting data necessary to manage the fishery, and despite finding that the requirement that sectors land all legal-size catch is "difficult to monitor and enforce."[12] As a result, Amendment 16 failed to ensure accountability with catch limits, overfishing has continued, and several overfished groundfish stocks have failed to meet their rebuilding schedules. Today, 12 Northeast groundfish stocks—more than half of the total stocks in the fishery—are categorized by NMFS as overfished, and three remain subject to overfishing.[13] The Council now acknowledges that Amendment 16's monitoring requirements "were insufficient for accurate catch monitoring."[14] Amendment 23 must rectify that deficiency.

The problems caused by insufficient catch monitoring in this fishery are well documented.[15] The Peer Review Report of 2019[16] found current monitoring has failed and continues to fail to produce reliable data on which to base management, including avoiding overfishing and ensuring accountability with annual catch limits. The Peer Review Report found that an observer effect exists in the groundfish fishery, undermining the validity of data collected by at-sea

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[6] *Id*. § 1853(a)(15).
[7] 50 C.F.R. § 600.310(f)(1).
[8] 16 U.S.C. § 1853(a)(8).
[9] *See id*. §§ 1853(a)(1)(A), 1853(a)(15), 1853(a)(8).
[10] Draft Amendment 23 at 380 (emphasis added).
[11] Amendment 16 Final Rule, 75 Fed. Reg. 18,297 (April 9, 2010).
[12] Draft Amendment 23 at 234.
[13] Draft Amendment 23 at 102, Table 5.
[14] Draft Amendment 23 at 380.
[15] *See, e.g.,* Draft Amendment 23 at 234-241.
[16] Peer Review Report for the Groundfish Plan Development Team Analyses of Groundfish Monitoring, New England Fishery Mgmt. Council, Sci. & Statistical Comm. Sub-Panel, Apr. 24-25, 2019, *available at* https://s3.amazonaws.com/nefmc.org/3b_190513_SSC_Sub_Panel_Peer-Review- Report_OEMethods_FINAL.pdf.

monitoring, noting specifically "[t]here are differences both in discarding behavior and in fishing behavior between observed and unobserved trips."[17] The status quo CV method was discredited in the Peer Review Report as a means to calculate needed coverage rates; the confirmation of the observer effect "suggests it is not appropriate to determine a level of observer coverage that should be deployed by considering the coefficient of variation of discard estimates from observer coverage since observed trips are not representative of unobserved trips."[18]

Over two years ago, the Council heard discussion about extensive unreported catch, including cod discards of "2,000-3,000 pounds per trip" and "reports about observers not recording these discards."[19] Amendment 23 recognizes that the problems caused by insufficient catch monitoring include unreported and misreported catches, disagreements between data sources, flawed assessments from misreported catch, collusion between dealers and vessels to misreport landings,[20] observer coverage bias where observed trips are not representative of non-observed trips, and perpetuation of incentives to misreport.[21]

In particular, with respect to observer coverage bias, Amendment 23 acknowledges that statistical analyses "cannot quantify the differences between observed and unobserved trips in a way that allows for either a mathematical correction to the data or a survey design that resolves bias."[22] In other words, there is no mechanism to account for observer coverage bias except to eliminate it.

Not only does the Council itself recognize the need for 100% monitoring, recent peer-reviewed science confirms this necessity. A recent article by Drs. Boenish and Chen analyzed the effects of unaccounted bycatch of Atlantic cod in the Maine American lobster fishery.[23] The authors noted that fishery participants are more likely to under- than over-report due to various factors, such as extra paperwork for landing unwanted catch, inability to sell individual species, hard quotas, and concerns that reporting may result in less favorable fishing quota.[24] They concluded that failure to accurately account for cod bycatch in the lobster fishery undermined the cod stock assessment and "could be substantial to hindering rebuilding efforts."[25] They also found that "[f]ull accounting for catch is one of the most rectifiable shortfalls of the current assessment." [26]

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[17] Id. at p, 18

[18] Id.

[19] *See* Transcript of Audio Recording of April 2018 Council meeting ("This Spring, the number of individuals coming to us with reports about cod discarding is unusually high…. Reports we are receiving this spring are that there are discards up to 2000-3000 pounds per trip happening in this area. We are hearing reports from not just groundfish vessels but other non-groundfish vessels that they are catching dead cod in many of their tows. We are also hearing reports about observers not recording these discards.").

[20] *See, e.g., United States v. Carlos Rafael*, No. 1:16-cr-10124-WGY (D. Mass.).

[21] *See* Draft Amendment 23 at 235.

[22] Draft Amendment 23 at 241.

[23] Boenish, Robert & Chen, Yong, *Re-evaluating Atlantic cod mortality including lobster bycatch: where could we be today?,* Canadian Journal of Fisheries and Aquatic Sciences, https://www.nrcresearchpress.com/doi/full/10.1139/cjfas-2019-0313.

[24] *Id.* at 1.

[25] *Id.* at 10.

[26] *Id*.

In a separate article, Dr. Kritzer opined that "the most important information needed for effective fisheries management are data on the timing and location of fishing activity, and the volume and composition of catch, which are best obtained through comprehensive at-sea monitoring."[27] Kritzer further observed that while rates of non-compliance with regulations can be quantified, the effects of such non-compliance on achieving management objectives cannot be.[28] Comprehensive monitoring fills that void, in addition to providing the "ability to detect and prosecute non-compliance by bad actors, while creating conditions that give well-intentioned actors confidence in the validity and effectiveness of the management system, and enable them to thrive."[29] "If fishers perceive a high probability of noncompliant actions being detected, they are less likely to break rules, bolstered by confidence that others are working under the same accountability conditions, and therefore that fishing is being prosecuted and managed fairly."[30] Thus, "systems that promote participation and positive incentives" like 100% ASM coverage "can be the 'carrot' that is paired with the 'stick' of enforcement."[31]

Finally, in another article Dr. Boenish and others reviewed monitoring programs in three fisheries: the recreational red snapper fishery in the Gulf of Mexico, the Bristol Bay sockeye salmon fishery, and the Atlantic lobster fishery.[32] The authors found that comprehensive monitoring improves accountability and can lead to greater access to the fishery, creates more trust in management with greater industry buy-in, and can help detect management issues earlier and avoid more restrictive regulations down the road.[33]

The problems facing the New England groundfish fishery will continue to persist, and to frustrate management objectives and compliance with statutory mandates, unless the Council adopts 100% ASM coverage. Draft Amendment 23 acknowledges that 100% monitoring coverage will result in improved catch accounting, which "should result in more accurate information on catch and fully accounted for discard mortality"[34] and "in the long term should allow for rebuilding of overfished stocks."[35] By contrast, options providing for less than 100% coverage will not similarly ensure compliance with catch limits, that overfishing is prevented, or that stocks are rebuilt. This is because "[c]overage of 100 percent of trips is the only option that completely removes bias, and . . . scores highest in terms of compliance and enforcement of the monitoring program."[36]

Setting ASM coverage levels below 100%, even at 75% as contemplated by Sub-option 2C, would perpetuate inaccurate catch monitoring, fail to ensure compliance with catch limits, and thus not

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[27] Kritzer, Jacob, *Influences of at-sea fishery monitoring on science, management, and fleet dynamics*. Aquaculture and Fisheries (2019), https://doi.org/10.1016/j.aaf.2019.11.005.
[28] *Id*.
[29] *Id*. at 4.
[30] *Id.* at 5.
[31] *Id*.
[32] Boenish, Willard, Kritzer, and Reardon, *Fisheries monitoring: Perspectives from the United States* (2019), Aquaculture and Fisheries, https://doi.org/10.1016/j.aaf.2019.10.002.
[33] *Id*. at 3, 6-7.
[34] Draft Amendment 23 at 5.
[35] Draft Amendment 23 at 5.
[36] Draft Amendment 23 at 67.

meet the statutory requirements to implement measures "necessary and appropriate" to manage the fishery and prevent overfishing,[37] or to specify the data "needed for effective implementation of the plan."[38] In addition, the cost savings would be relatively insignificant, but the lost information and the ongoing uncertainty associated with unreliable data, far outweigh those minor savings.

Electronic Monitoring Can Make 100% Monitoring Cost Effective

While acknowledging the benefits of 100% monitoring for accurate catch accounting, Amendment 23 contends that requiring that level of coverage "may be impracticable for industry or NMFS to fund . . . resulting in a lower coverage level."[39] While funding issues provide no legal basis to reduce coverage levels,[40] the Council does not acknowledge the fact federal resources have already been made available that are sufficient to cover multiple years of 100% monitoring if such monitoring is done electronically.

Draft Amendment 23 acknowledges that when EM is on 100% of trips, it will "ensure precise and accurate catch (lands and discards) estimation and minimize the potential for biases in the estimates. . . ."[41] The Draft Amendment further notes that EM eliminates "pre-trip selection logistics" and bias, while maximizing the value of vessel-reported discard data.[42] The Council's analyses show that "100% [EM] monitoring may be considerably cheaper—between 44% and 60% less than humans alone when costs are compared over a three year period."[43] In comparison to the cost of human observers, Draft Amendment 23 notes that "EM is a lower cost alternative to human observers when a vessel fishes more than 20 days a year."[44]

What matters most is that the resulting monitoring system accomplishes full accountability, and as an additional benefit can establish an effective platform for future increased efficiencies, cost savings, and better data. Moving ultimately to a fully electronic system, therefore, is most promising to achieve those longer-term purposes. Modernizing data collection remains a top priority for fisheries management and NOAA, and this amendment provides a critical opportunity to advance this priority.

The Council's analysis of the management and economic benefits of EM is consistent with independent research results. Dr. Kritzer observed that while human observers can ameliorate biased reporting, they "can be expensive, create operational issues for fishers, and introduce

[37] 16 U.S.C. § 1853(a)(1)(A).
[38] *Id*. § 1853(a)(8).
[39] Draft Amendment 23 at 85.
[40] *See Nat. Res. Def. Council v. Daley*, 209 F.3d 747, 753 (D.C. Cir. 2000) ("[U]nder the Fishery Act, the Service must give priority to conservation measures" and "[i]t is only when two different plans achieve similar conservation measures that the Service takes into consideration adverse economic consequences.").
[41] Draft Amendment 23 at 60.
[42] *See id*.
[43] *Id.*
[44] Draft Amendment 23 at 440.

safety issues for the observers themselves."[45] By contrast, a "new generation of electronic monitoring tools are less intrusive and have lower long term costs."[46]

Many stakeholders, including those who support the uptake of EM, wish to know more about funding to implement and run the new monitoring program. We strongly urge NMFS and the Council to provide a thorough and long-term spending plan for the systems at your earliest opportunity. This region has benefitted from significant federal appropriations designed to alleviate the financial impact of monitoring requirements on the fishing industry. Through the concerted efforts of many, including congressional champions from the New England delegation and NOAA leadership, costs for the New England groundfish monitoring program have been amply covered for at least the first several years post-implementation. Once NMFS has provided more information about the availability of these funds, Council members can have the benefit of greater understanding about the true costs and cost responsibilities for implementing the new monitoring program. Without that information, the uncertainty about cost fuels arguments against making the needed changes for recovering this fishery.

Additional Comments on Alternatives Evaluated in the Draft EIS

Commercial Groundfish Monitoring Program Revisions (Sectors Only) (Section 4.1 of DEIS)
Sets the standard at 100% coverage of trips by ASM. Sets additional sector monitoring tools, in addition to human at-sea monitors, including the audit model for EM and maximized retention EM (which has a dockside monitoring component). Establishes a review process to evaluate the monitoring coverage rate. Allows for additional monitoring tools and vessel specific coverage levels through a future framework adjustment.

As noted in previous sections of this letter, we strongly support the target of 100% coverage of all groundfish trips and believe that the incorporation of EM fleet-wide will be crucial to achieving the target. We appreciate that the review of EM data is among the most costly pieces of the technology, and coming up with a reasonable threshold review rate will be an important exercise in defining an effective program while keeping costs in check. The different needs of small and large vessels will help inform the use of an audit model or max retention approach, respectively. Dockside monitoring will be necessary to reinforce and validate EM data, especially if a maximum retention model is established. Based on our observations in other fisheries, dockside monitoring is an important part of effective monitoring systems. We encourage the Council to require dockside monitoring with the potential to ramp down coverage as EM uptake and comfort with the new monitoring requirements becomes settled policy, potentially moving to a more randomized sampling model for DSM.

Commercial Groundfish Monitoring Program Revisions (Sectors and Common Pool) (Section 4.2 of DEIS)
No action would maintain the status quo, no mandatory dockside monitoring program for sectors and the common pool.

[45] Kritzer, *supra*, at 2.
[46] *Id.*

Dockside monitoring is a critical part of establishing accountability and as stated above should be required in the initial phases of EM deployment at sea, with the potential to ramp down dockside review in ensuing years. Maintaining a level of randomized dockside monitoring as an integral part of the system will be critical to ensuring accountability.

Sector Reporting (Section 4.3 of DEIS)
The Council did not select a preferred alternative in this section. No action would maintain current sector reporting requirements.

Maintaining the status quo is acceptable, but sectors should consider refreshing reporting requirements to highlight discrepancies between logbooks and EM review data greater than a certain percentage or develop other audit-style reviews and protocols.

Funding/Operational Provisions of Groundfish Monitoring (Sectors and Common Pool) (Section 4.4 of DEIS)
Allows for waivers from monitoring requirements for sectors and common pool under certain conditions.

We suggest that the Council define "certain conditions" and ensure that these waivers are not allowed to undermine the new monitoring requirements. If too many vessels are granted waivers, the trust in the data collected through ASM will be affected, potentially increasing uncertainty in stock assessments and management decisions. Increased ASM is intended to do the exact opposite, and undercutting those requirements will make these improvements null.

Management Uncertainty Buffers for the Commercial Groundfish Fishery (Sectors Only) (Section 4.5 of DEIS)
With 100% monitoring of all sector trips, this alternative eliminates the management uncertainty buffer for sector sub-ACLs of allocated stocks only.

Even with a 100% monitoring target, it is implausible to justify an assumption of 100% certainty in management decisions.

Remove Commercial Groundfish Monitoring Requirements for Certain Vessels Under Certain Conditions (Section 4.6 of DEIS)
Removes monitoring program requirement for vessels fishing exclusively west of 71 degrees 30 minutes west longitude from at-sea and dockside monitoring coverage requirements. Establishes a review process for vessel to be removed from commercial groundfish monitoring program requirements.

We support starting out with monitoring coverage for the full fleet with no exemptions, collecting data about catch and bycatch, and then exploring whether a reduction in coverage or an exemption is warranted. In addition, as with Section 4.4, the Council must define "certain conditions." Collecting several years of these data would remove the uncertainty and lack of clarity about such details as what "little to no groundfish" means – there would be information to

help establish the standards and therefore the Council could make informed, data-driven decisions about any reductions or exemptions for this segment of the fishery.

Conclusion

EDF urges the Council to adopt certain Preferred Alternatives, specifically Sector Monitoring Standard Option 2, Sub-option 2D (4.1.1.2.4) and Sector Monitoring Tools Options 2 and 3 (4.1.2.2, 4.1.2.3), when taking final action on Amendment 23. Given the history of chronic overfishing and stock depletion in this fishery, the record is clear that implementing 100% monitoring coverage is necessary to comply with MSA requirements, and that authorizing EM can significantly reduce costs and boost revenues over other alternatives.

Thank you for considering our comments and for your leadership in developing and advancing this important action. We request that the articles and studies cited herein be added to the administrative record for Amendment 23 along with this letter.

Sincerely,

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