



December 21, 2022

Carly Bari, Fishery Policy Analyst Greater Atlantic Region Fisheries Office, National Marine Fisheries Service National Oceanic and Atmospheric Administration 55 Great Republic Drive Gloucester, MA 01930

Re: Comments on Atlantic Mackerel Rebuilding Version 2 Proposed Rule: Amendment 23 to the Mackerel, Squid and Butterfish Fishery Management Plan

Dear Ms. Bari:

We are writing on behalf of The Pew Charitable Trusts (Pew), Conservation Law Foundation (CLF), Natural Resources Defense Council (NRDC), and Bennett Nickerson Environmental Consulting (BNEC) to provide comments on the Mackerel Rebuilding Plan Version 2 Proposed Rule (Proposed Rule). Specifically, we urge the National Marine Fisheries Service (NMFS) to disapprove the proposed rebuilding plan and its associated acceptable biological catch (ABC) and remand Amendment 23 to the Mid-Atlantic Fishery Management Council (Council) with recommendations to further develop and adopt Alternative 1 from the Draft Environmental Assessment (Draft EA).¹ Alternative 1 follows the best available science, establishes a rebuilding trajectory that immediately ends overfishing consistent with rebuilding requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and ensures the highest overall probability of recovering the overfished Atlantic mackerel stock.

A healthy forage base is essential to the ocean ecosystem of the Northwest Atlantic, supporting populations of managed and unmanaged predators coastwide, and for bolstering ocean ecosystem resiliency to climate change. As demonstrated by NMFS' own science, the Atlantic mackerel (mackerel) stock, like many other important forage species, has been in dramatic decline since 1970. This decline is due in large part to overly optimistic stock and recruitment projections combined with high fishing mortality in the face of uncertainty. High catch limits based on historical fishing levels, instead of the strong retrospective pattern of low and continuously declining recruitment that demonstrates the true status of the stock, have resulted in overfishing year after year. We now know that this ongoing level of fishing mortality led to over 30 years of overfishing² and at its lowest point, the mackerel stock had decreased to less than 10 percent of its target biomass.³

When mackerel was declared overfished and overfishing was occurring in 2018, the Council was statutorily obligated to end overfishing immediately and develop a rebuilding plan that would rebuild mackerel in ten years or less.⁴ Instead, the Council and NMFS relied on overly optimistic recruitment projections and finalized a rebuilding plan that ultimately allowed overfishing to continue, causing further decline of the mackerel stock, and creating a more difficult road to recovery. This is the road we are on

² 2022. MAFMC. <u>Mackerel Rebuilding Version 2 Public Hearing Document (PHD)</u>: Amendment to the Mackerel, Squid, and Butterfish Fishery Management Plan: Measures to Rebuild the Atlantic Mackerel Stock Including 2023 Specifications and the River Herring and Shad (RH/S) Cap. P. 9.

¹ Magnuson Stevens Fishery Conservation and Management Act, 16 U.S.C. 1854(a)(3). The MSA requires that the Secretary approve, disapprove, or partially approve Amendment 23 within 30 days of the end of the comment period. If the Secretary disapproves or partially disapproves the amendment, the Secretary must specify recommendations to be taken by the Council to conform with the mandates of the MSA.

³ 2021. NOAA. Management Track Assessment for Atlantic mackerel.

⁴ *Id*. at p.1.

now, and once again, the proposed rebuilding plan will not accomplish statutory obligations to end overfishing immediately and rebuild the mackerel stock in as short a time as possible so that it can achieve optimum yield on a continuing basis. Failure to timely rebuild mackerel will have cascading detrimental impacts on mackerel's many managed and unmanaged predators and the bioenergetics of the ocean ecosystem. Furthermore, the Rebuilding Plan Draft EA (Draft EA) recognizes that climate change will have a moderate negative impact on mackerel, demanding that if this species is to be "climate-ready," then NMFS must consider the resiliency of the stock and cumulative impacts of climate change in its decision-making.⁵

It is not too late for NMFS and the Council to change course and rebuild the mackerel stock. In its Proposed Rule NMFS outlines the rebuilding plan for mackerel, sets 2023 commercial specifications for mackerel, implements a 2023 river herring and shad (RH/S) catch cap, and sets the first ever recreational mackerel catch cap. These measures should be disapproved and NMFS should remand the Proposed Rule back to the Council with the recommendation that it further develop and adopt Alternative 1 in the Draft EA and apply the P* deduction to comply with the Council's risk policy.

The Magnuson-Stevens Act (MSA) mandates that when a stock is overfished, the Council must end overfishing immediately and enter a rebuilding plan that rebuilds the stock in as short a time as possible, not to exceed ten years except when the biology of the stock dictates otherwise. Alternative 1 will end overfishing immediately because it would close the fishery in the near term. In the long-term the biology of the stock is such that if the Council follows Alternative 1 and the best available science that presumes lower, post 2009 recruitment, and applies the P* deduction to comply with the Council's risk policy, it will likely take longer than ten years to rebuild the stock. The MSA requires NMFS and the Council to rebuild as quickly as possible, but the Proposed Rule recommends a rebuilding plan that while shorter in time than Alternative 1, runs higher risk of continued overfishing and failure to rebuild. Conversely Alternative 1 has the "highest overall probability of increasing stock size by 2025"⁶ and the "highest overall probability of rebuilding."7 To add more certainty to rebuilding success, NMFS should recommend that the Council apply the P* deduction to the low recruitment rebuilding trajectory to comply with the Council's risk policy. The combination of the low recruitment timeframe and the P* deduction will ultimately result in the closure of the fishery in the near-term to allow the stock to recover and ensure the recovery of the mackerel stock and its reliant fishery, consistent with requirements of the MSA.

The fate of mackerel and the fishery it sustains is at a precipice. NMFS must use the best available science to rebuild this stock before long-term harm to the mackerel population and broader ecosystem occurs. Taking a precautionary approach to rebuilding will deliver the best chance to return this fishery to greater abundance and high value for the nation. For fast growing forage fish species like mackerel, recovery of the stock can happen if fishing rates are set appropriately, and in mackerel's case: halted in the near-term. Following the best available science, NMFS should disapprove the Proposed Rule and remand it to the Council with the recommendation that they further develop and adopt Alternative 1. While any management that prohibits fishing is far from ideal, past mismanagement of the mackerel stock has created the situation we are in today. NMFS must now make the necessary and difficult decision to close directed commercial and recreational mackerel fishing in the exclusive economic zone (EEZ) to ensure the recovery of the stock for the benefit of the ecosystem, the species, and the fisheries that depend on a healthy mackerel stock.

⁵ 2022. MAFMC. <u>Mackerel Rebuilding, Version 2. Draft EA</u>. p. 137-138.

⁶ Id. at. 26-27.

⁷ 2022. MAFMC. <u>Mackerel Rebuilding, Version 2 PHD</u>. p. 21.

Specifically, NMFS should:

- Disapprove the rebuilding trajectory that uses a two tiered recruitment timeframe and a fishing mortality rate of .12 in the Proposed Rule and remand it to the Council with a recommendation to further develop and adopt Alternative 1 from the Draft EA because it uses the best available science to establish a rebuilding trajectory for Atlantic mackerel using lower, post 2009 recruitment and sets the ABC in the EEZ at zero in the near-term, thereby ensuring the highest overall probability of recovering the stock;
- Recommend that the Council apply the P* deduction to Alternative 1 to comply with the Council's risk policy;
- Disapprove the 2023 Atlantic mackerel ABC in the Proposed Rule and recommend that the Council set specifications at or below the Science and Statistical Committee (SSC) recommendation of 4,539 mt as required by the Magnuson Stevens Fishery Conservation and Management Act (MSA);
- Consider the cumulative impacts of the Proposed Rule in the face of climate change and consider the cumulative impacts of the Proposed Rule on a depleted Atlantic Ocean forage base when setting the rebuilding trajectory for Atlantic mackerel;
- Disapprove the status quo RH/S catch cap of 129 mt and recommend that the Council follow its decision in Mackerel Rebuilding Plan 1.0 and scale the RH/S catch cap to the mackerel DAH with a lower limit of 89 mt and an upper limit of 155 mt;
- Disapprove the Atlantic mackerel recreational catch limit of 2,143 mt and recommend that the Council set the recreational catch limit at zero in the EEZ in the near term and set a 10 fish bag limit for the recreational fishery; and
- Recommend that the Council require a minimum codend mesh size of 3 inches.

Background

There has always been uncertainty in management of Atlantic mackerel. Prior to the 2018 Atlantic Mackerel Stock Assessment, the most recent assessment was the Transboundary Resources Assessment Committee in 2010 (TRAC 2010) that analyzed data through 2008.⁸ The results of that transboundary stock assessment were so uncertain that the TRAC agreed that "short term projections and characterization of stock status relative to estimated reference points would not be an appropriate basis for management advice."⁹ The 2010 TRAC determined that assessments prior to 2010 were also unreliable and thus, until the 2018 Atlantic Mackerel Stock Assessment became available, it was unknown if the stock was overfished or if overfishing was occurring.¹⁰ Because underlying data was unreliable in guiding management, decades of management decisions were not rooted in science-based determinations of how much fishing pressure the stock could sustain. Instead, ABCs and U.S. quotas were based on average landings from previous years.¹¹ Specifically, for 2013, 2014, and 2015 the 80,000 mt ABC was based in landings data from 2006-2008.¹² And then for the decade from 2004-2014, there was only one year when commercial landings exceeded 50 percent of the quota. (See Figure 1) In fact: the U.S. quota has never constrained the fishery and has allowed overfishing to hammer the stock year after year.

⁸ 2010, O'Brien L, Worcester T. 2010. Proceedings of the Transboundary Resources Assessment Committee <u>Mackerel Benchmark Assessment</u>; 2015. MAFMC. <u>Mackerel AP Information Document</u>.

⁹2015. MAFMC. <u>Mackerel AP Information Document</u>. P. 2.

 $^{^{10}}$ Id.

¹¹ 2015. MAFMC. <u>Mackerel AP Information Document</u>; 2014. MAFMC. <u>Mackerel AP Information Document</u>; 2013. MAFMC. <u>Mackerel AP Information Document</u>; 2014. MAFMC. <u>Mackerel AP Information Document</u>; 2013. MAFMC. <u>Mackerel AP Information Document</u>; 2014. MAFMC. <u>Mackerel AP Information Document</u>; 2013. MAFMC. <u>Mackerel AP Information Document</u>; 2014. MAFMC. <u>Mackerel AP Information Document</u>; 2013. MAFMC. <u>Mackerel AP Information Document</u>; 2014. MAFMC. <u>Mackerel AP Information Document</u>; 2013. MAFMC. <u>Mackerel AP Information Document</u>; 2014. MAFMC. <u>Mackerel AP Information Document</u>; 2013. MAFMC. <u>Mackerel AP Information Document</u>; 2014. MAFMC. <u>Mackerel AP Information Document</u>; 2013. MAFMC. <u>Mackerel AP Information Document</u>; 2014. MAFMC. <u>Mackerel AP Information Document</u>; 2013. MAFMC. <u>Mackerel AP Information Document</u>; 2014. MAFMC. <u>Mackerel AP Information Document</u>; 2013. MAFMC. <u>Mackerel AP Information Document</u>; 2014. MAFMC. <u>Mackerel AP Inform</u>

 $^{^{12}}$ *Id*.



Figure 1: US commercial quota verses actual Mackerel landings¹³

These risky management decisions continued even as precipitous declines in Spawning Stock Biomass (SSB), recruitment, and egg count were apparent. (See: Figure 2). Setting ABCs and U.S. specifications based on how mackerel was fished in previous years allowed overfishing to persist for decades, ultimately causing stock collapse and driving SSB so low that recovering the stock in ten years will be challenging, or even unattainable, and managers are limited to only hard choices.

Mackerel Rebuilding Plan Version 1

After decades of setting specifications based on previous landings and allowing systemic overfishing that resulted in considerable decline in SSB, the mackerel stock reached a low point in 2012-2014 at around 8-9 percent of the biomass target.¹⁴ The 2018 stock assessment declared that the mackerel stock was overfished and overfishing was occurring in 2016.¹⁵ In response to the overfished and overfishing determination, the Council and NMFS embarked on a mackerel rebuilding plan as required by the MSA. That plan went into effect November 2019. It set a five-year rebuilding timeline that relied on an overly optimistic forecast of recruitment from the 2015 year class, and predicted SSB would reach 162,796 mt in 2019.¹⁶ The subsequent 2021 Management Track Assessment (MTA) demonstrated that the anticipated recruitment from the 2015 year class never materialized and determined that in fact SSB was only 42,862 mt in 2019, less than 25 percent of the rebuilding target.¹⁷ The lack of a precautionary approach and resulting discrepancy resulted in the stock being overfished with overfishing occurring in every year of the rebuilding plan,¹⁸ leading to the plan's inevitable failure to rebuild the mackerel stock.

The first mackerel rebuilding plan failed because overly optimistic projections of recruitment guided catch levels for 2019, 2020, and 2021 which allowed overfishing to continue and prevented recovery of the stock. Mackerel catch in these years was significantly below the rebuilding quota, following the same pattern of overoptimistically setting catch and overfishing the stock.¹⁹ With the current Proposed Rule, NMFS is poised to repeat this same mistake again. Council and NMFS management decisions have relied on the fact that the stock tripled in size from 2014 to 2019. However, even after tripling the stock was still

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<sup>18</sup> 2021. NOAA. <u>Management Track Assessment for Atlantic mackerel</u>.
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¹³ 2015. MAFMC, Mackerel AP Fishery Information Document. P. 3 and 8.

¹⁴ July 13, 2021. Didden, J. Memorandum to C. Moore. Mackerel Rebuilding Modification/Re-assessment and Potential Emergency Action; SSC Meeting.

¹⁵ 2018. Northeast Fisheries Science Center. 64th Northeast Regional Stock Assessment Workshop: Assessment Summary Report. Atlantic Mackerel Assessment Summary for 2017. ¹⁶ 2022. MAFMC. Mackerel Rebuilding, Version 2 PHD. P. 10.

¹⁷ Id.

¹⁹ 2022. MAFMC. Atlantic Mackerel Fishery Information Document (Showing 2021 quota and landings); 2021. MAFMC. Atlantic Mackerel Fishery Information Document. (Showing 2020 quota and landings); 2020. MAFMC. Atlantic Mackerel Fishery Information Document. (Showing 2019 quota and landings).

a mere fraction of historic stock size and still below the threshold biomass. (*See* Figure 2.) But it does demonstrate that if NMFS proceeds with caution and appropriately limits fishing and gives the stock a chance, it can, and will recover.

Canada closed their 2022 Mackerel fishery and will follow the science for 2023

Mackerel is a transboundary stock, which complicates management because the mackerel ABC must be divided between the U.S. and Canada requiring coordination between countries in management decisions. Canada has determined that the mackerel stock has dropped below allowable levels and is implementing its own rebuilding plan. In doing so, Canada determined that none of their harvest control rules would result in the stock recovering to sustainable levels. Consequently, Canada determined that allowing directed commercial fishing would result in continued stock decline and closed their directed commercial fishery for 2022. While the recreational fishery remained open, Canada continued to apply a daily recreational limit that was instituted for the first time in 2021.

While we cannot predict the future, Canada has a pending stock assessment that is projected for release in early 2023 and we expect Canada to continue current directed fishing closures in the near future to enable rebuilding of the stock as the best available science demands. To support this prediction, Canada's Fisheries and Oceans Minster Joyce Murray expressed concern that while Canada was implementing closures, the U.S. was continuing to fish a stock that is in "critical condition" and called NOAA Administrator Richard Spinrad requesting joint U.S.-Canada management of the Atlantic mackerel stock.²⁰ Reporting on her conversation with Mr. Spinrad, Ms. Murray states that Mr. Spinrad was sympathetic and "wants to invoke the precautionary principal." However, nothing in the Proposed Rule demonstrates precaution. The U.S. should adopt similar policies to Canada and close its directed commercial and recreational fishing in the EEZ in the near-term to allow for recovery of the stock.

NMFS should disapprove the rebuilding trajectory that uses a two tiered recruitment timeframe and a fishing mortality rate of .12 in the Proposed Rule and remand it to the Council with the recommendation that they further develop and adopt Alternative 1 because it uses the best available science to establish a rebuilding trajectory for Atlantic mackerel using lower, post 2009 recruitment and sets the ABC in the EEZ at zero in the near-term, thereby ensuring the highest overall probability of recovering the stock

The MSA requires that the Council and NMFS rebuild this stock in as short a time as possible, not to exceed ten years unless the biology of the fish stock dictates otherwise.²¹ If NMFS recommends that the Council follow the best available science and adopt Alternative 1 that presumes low recruitment throughout the plan, and recommends that they apply the P* deduction to comply with the Council's risk policy, it is unlikely that rebuilding will happen in ten years – meaning, the biology of the stock dictates that NMFS exceed the ten year limit on rebuilding and simply rebuild as quickly as possible. Instead, the Council recommends presuming that recruitment will improve even with continued fishing pressure on the depleted stock and uses the ten-year mandate in the MSA to support this decision because the presumption of good recruitment *if it happens*, would increase the probability of rebuilding in ten years. This does not consider or address the inherent risk of once again relying on potential recruitment that might not happen, particularly if fishing pressure continues. Additionally, if the recruitment does happen, the proposed rebuilding plan would then allow fishing to increase ensuring that any good recruitment will

²⁰ Dec. 28, 2022. Withers, Paul. CBC News. <u>Fisheries minister angling for joint Canada-US management of depleted Atlantic mackerel stock</u>.
²¹ 16 U.S.C.1854(e)(4)(A)(ii).

not manifest in increased stock health, ultimately preventing recovery of the stock and resulting in another failed rebuilding plan.

History and the science demonstrate that the anticipated future recruitment the Council relies on in the Proposed Rule will not become a reality. Mackerel recruitment has been declining for almost 25 years²² and the stock has been overfished and overfishing has been occurring for 30 years. Yet, the Proposed Rule recommends a rebuilding plan that considers recruitment levels from over 25 years ago, before the precipitous decline of the stock, to estimate future recruitment. NMFS should disapprove the chosen rebuilding trajectory of the Proposed Rule and remand it to the Council with the recommendation that they further develop and adopt Alternative 1 from the Draft EA.

In our previous letter to the Council, we recommended that they select Alternative 1 from the Public Hearing Document (PHD) (which is also Alternative 1 in the Mackerel Rebuilding, Version 2 Draft EA²³) as the preferred alternative to include in the Proposed Rule because Alternative 1 is the only alternative offered in the rebuilding plan that represents the best scientific information available and presumes low recruitment when determining the rebuilding trajectory and allowable catch throughout the plan. All the other alternatives in the PHD and Draft EA – including Alternative 4 that has now become the recommendation in the Proposed Rule – use a rebuilding trajectory that initially uses the 2009-2019 low recruitment until SSB reaches 50 percent of the target, then it uses an expanded timeframe of 1975-2019 to introduce the higher recruitment of the 1970s, 80s, 90s, and early 2000s to justify increasing catch during rebuilding.²⁴ The higher recruitment levels prior to 2009 are not the best available science and have no bearing on the current status of the mackerel stock. This expanded timeline should not be used to determine the rebuilding plan and associated allowable level of catch—especially when the stock is overfished and overfishing has been occurring for 30 years.²⁵

The two-tiered process recommended in the Proposed Rule employs outdated recruitment data to justify increased catch levels that will undermine recovery by increasing fishing at the very moment the population is expected to rebound. This is a demonstrated path to failure for both the mackerel stock and the directed fishery. The unsuccessful Mackerel Rebuilding Plan Version 1 took a similar approach, necessitating a redo that is the current Proposed Rule – taking precious time and attention away from other Council and NMFS priorities.

Instead, of the two-tiered rebuilding trajectory offered in the Proposed Rule, NMFS should recommend that the Council follow the best available science that indicates mackerel recruitment and SSB are alarmingly low and that "long-term rebuilding will be required for this stock."²⁶ NMFS should disapprove thee Proposed Rule and remand it to the Council with the recommendation that the Council further develop and adopt a rebuilding plan that ends overfishing immediately and successfully rebuilds the stock as quickly as possible. Alternative 1 from the PHD and Draft EA accomplishes this by essentially closing directed commercial and recreational fishing in the EEZ, which is necessary to end overfishing immediately and allow for the stock to rebuild in earnest as is required by the MSA.

²² Amendment 23 to the Mackerel, Squid and Butterfish Fishery Management Plan. 87 Fed. Reg. 66120, at 66120. (Nov. 2, 2022) (Proposed Rule).

²³ 2022. MAFMC. <u>Mackerel Rebuilding, Version 2. Draft EA. p. 2.</u>

 ²⁴ 2022. MAFMC. Mackerel Rebuilding, Version 2. PHD, p. 2; 2022. MAFMC. Mackerel Rebuilding, Version 2. Draft EA, p. 2.
 ²⁵ 2022. MAFMC. Mackerel Rebuilding, Version 2. PHD, p. 9.

²⁶ *Id.* at. p. 3.

Low recruitment represents the true situation of the Atlantic mackerel stock and the best available science and rebuilding specifications should be based on the low 2009-2019 recruitment levels

Mackerel recruitment has been low since 2003. The cause of the reduced recruitment is unknown, but it is likely a combination of environmental conditions and reduced SSB. Regardless of cause, the dramatic and continued downward trend of mackerel SSB and its recruitment from 1960 to the present is undeniable.²⁷ Conversely, fishing has increased over this period, creating a clear picture that decades of fishing pressure and overfishing coincide directly with the decline and ultimate collapse of the mackerel stock.



Figure 2: Precipitous declines in Atlantic mackerel spawning stock biomass, recruits, and egg count as shown in the 2021 Management Track Assessment²⁸



Figure 3: 2021 Northwest Atlantic Mackerel Management Track Assessment Report of fishing mortality²⁹, also found in Atlantic Mackerel Rebuilding Plan Version 2 PHD³⁰

These graphs viewed together demonstrate the unmistakable impact overfishing has had on the mackerel stock. The health of mackerel in 1970 has no value in determining the ABC for mackerel in 2023, particularly in a revised rebuilding plan. However, these 1970 to present graphs demonstrate two things: 1) continuing the current management trend of setting ABCs based on previous catch levels and overly optimistic stock projections will only exacerbate the downward trend in SSB and recruitment that has

²⁷ Id. at. p. 12.

²⁸ 2021. NOAA. <u>Management Track Assessment for Atlantic mackerel</u>

²⁹ Id.

³⁰ 2022. MAFMC. <u>Mackerel Rebuilding Plan Version 2, PHD</u>. p. 11 and 12.

been occurring since the mid-1970s; and 2) if you initially remove and then limit fishing pressure, the stock can recover its historical vitality.

There have been four major recruitment events since 1976. Each of these recruitment events were followed by a spike in SSB which never materialized into an enduring biomass increase because fishing was increased shortly after increases in SSB. (See Figure 4). Alternatives 2-5 expand the recruitment timeframe as soon as SSB reaches the 50 percent rebuilt mark, following the historical pattern to allow for an increase in fishing as soon as the stock is beginning to recover. This lack of precautionary management is ultimately preventing enduring increases in SSB and the recovery of mackerel.



Figure 4: *Mackerel SSB and catch, including 2019-2021 rebuilding projections under the initial 5-year rebuilding plan*

During the process of determining the rebuilding trajectory that should be preferred in the Proposed Rule at the Council, the Council's Scientific and Statistical Committee (SSC) outlined several other risks inherent in the two-tiered recruitment alternatives. These risks include: the possibility that the stock will not recover without lowering fishing mortality as proposed in Alternative 1; a concern that the shift to the expanded recruitment timeframe is triggered by a SSB threshold, which presumes a relationship between SSB and recruitment when this relationship is unknown for mackerel, and for which there is limited analytical support, and thus is potentially inaccurate; recruitment of mackerel has typically come in pulses and the SSB trigger that allows for increased catch may undermine the pulse of recruitment or be ill timed in relation to it; and the lack of a precedent in this approach makes determining its potential for success challenging.

Knowing these concerns, the two-tiered approach is too uncertain and could potentially jeopardize rebuilding (again) and undermine the future of not just the directed fishery, but also the functionality of the northwest Atlantic marine ecosystem.



Figure 5: *Mackerel SSB rebuilding projections for all alternatives. For Alternative 1 (bright pink) the range of uncertainty and risk of not rebuilding is lowest*

NMFS should recommend that the Council apply the P* deduction to Alternative 1 to comply with the Council's risk policy

The Council's risk policy was adopted to address precisely the situation where a stock is overfished or overfishing is occurring. Additionally, the policy was designed to ensure the Council makes consistent and precautionary management decisions when faced with variable uncertainty. The risk policy was developed by the Council through a public process with input across resource stakeholders and was finalized in 2019. As it pertains to this rebuilding plan, the Council's risk policy has a sliding scale of acceptable probability of overfishing for a species with a typical life history. Specifically, healthy stocks are managed at a set risk of overfishing, while lower stock sizes trigger a lower probability of overfishing that decreases as the stock becomes more imperiled. Because the mackerel stock is only projected to be 32 percent rebuilt in 2023, the first year of the rebuilding plan, the risk policy would require an 85.5 percent confidence in <u>avoiding</u> overfishing (or only a 14.5 percent chance of overfishing) in 2023.³¹ In this instance, given the huge volume of fish that can be taken in just one tow from the vessels participating in this fishery, the only way to reach that level of confidence would be to close the commercial and recreational fishery for 2023 in the EEZ. Even then, because this stock has been managed into its current, overfishing situation, it is possible that incidental catch and state recreational catch would cause overfishing.

Despite the recently updated risk policy, Mackerel Rebuilding Plan Version 1 implemented a "temporary adjustment" to the risk policy which contributed to its failure. The first rebuilding plan adjusted the risk policy to implement the preferred alternative that allowed for higher catch and a longer rebuilding timeframe that ultimately resulted in overfishing throughout the rebuilding plan. In fact, the updated risk policy has never been used in a rebuilding plan – the very situation when its application is most important. The current rebuilding trajectory in the Proposed Rule does not apply the "precautionary principal" and the Council's risk policy and allows continued fishing at a rate greater than what the stock can provide.

On remand, NMFS should recommend that the Council comply with its risk policy and apply the P* deduction to a rebuilding trajectory that uses the consistent low recruitment and set directed catch at zero

³¹ Id. at. p. 16.

for 2023. It is possible (or even likely) that when you apply the P* deduction to F at 0.01, the rebuilding timeframe will extend beyond ten years. This highlights the hard truth that when the best available science is used and an appropriate risk of overfishing is applied, this stock is so depleted that it likely cannot be rebuilt in ten years, even if directed fishing is closed in the EEZ. The MSA creates an exception to the ten-vear mandate if "the biology of the stock of the fish...dictate[s] otherwise."³² That is precisely the situation at hand. NMFS should recommend that the Council apply the P* deduction to the low recruitment rebuilding trajectory to comply with the risk policy, and close directed fishing in the EEZ.

NMFS should disapprove the 2023 Atlantic mackerel ABC in the Proposed Rule and recommend that the Council set specifications at or below the SSC recommendation of 4,539 mt as required by the MSA

The rebuilding trajectory recommended in the Proposed Rule for Mackerel Rebuilding Version 2 generates ABC recommendations that exceed the SSC's recommendations and are thus inconsistent with requirements of the MSA. NMFS must adopt a rebuilding plan that rebuilds mackerel consistent with the law when taking final action. Alternative 1 offered in the EA would generate a catch level below the SSC recommendation and would comply with the MSA.

Under relevant law, the MSA states that "[e]ach Council shall, in accordance with the provisions of this Act -" ... "develop annual catch limits for each of its managed fisheries that may not exceed the fishing level recommendations of its scientific and statistical committee..."³³ The National Standard 1 guidelines support this mandate stating, "[e]ach Council shall develop ACLs for each of its managed fisheries that may not exceed the "fishing level recommendations" of its SSC.... The SSC recommendation that is the most relevant to ACLs is ABC, as both ACL and ABC are levels of annual catch."34

The SSC convened on March 15, 2022, to review the condition of the Atlantic mackerel stock and discuss the proposed alternatives in Atlantic Mackerel Rebuilding Version 2, PHD. Each alternative laid out a rebuilding trajectory and a level of risk of overfishing with ABCs generated for all ten years of the rebuilding plan. The SSC reviewed and considered the ABCs for all 10 years for each alternative,³⁵ but the SSC Report expressly provides ABCs for FY 2023 and FY 2024.³⁶

For several reasons provided in the SSC summary of that meeting, the SSC recommended Alternative 2 split standard P* (Alternative 3 in the PHD and the EA).³⁷ The SSC justified this recommendation and the resulting ABCs as follows: Alternative 2 "(1) fulfills rebuilding plan requirements; (2) is the most responsive to new information on changes in stock status; (3) produces the highest rebuilding plan 10year catch yield); (4) is fully consistent with the Council's P* risk policy; and (5) would avoid "break points" in catch limit advice, which would reduce year-to-year changes in the ABC."38 Alternative 2 (Alternative 3 of the PHD and EA) generates an ABC of 4,539 mt in FY 2023 and 6,207 mt in FY 2024.

The rebuilding trajectory recommended in the Proposed Rule generates an ABC of 8,094 mt in FY 2023 and 9,274 mt in FY 2024. The selection of Alternative 4 would allow catch to exceed the SSC's ABC recommendations for those two years by almost double those found in the Alternative 2 (Alternative 3 in

³² Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 304(e)(4)(A)(ii).

³³¹⁶ U.S.C. § 1852 (h)(6).

³⁴ National Standard 1 Guidelines. 50 C.F.R. § 600.310 (b)(2)(v)(D).

³⁵ 2022. MAFMC, March 15-16, 2022 SSC Meeting Briefing Materials. NEFSC rebuilding projection tables: Mackerel 10 Year Rebuilding Projections (Excel), and Mackerel P* Projections (Excel).

³⁶ March 28, 2022. MAFMC, SSC. Memorandum from SSC Chair Paul J. Rago PhD to MAFMC Chairman Michael P. Luisi, Report of the March 2022 SSC Meeting. P. 10-11.

^{2022.} MAFMC. Mackerel Rebuilding, Version 2 PHD. p. 26.

³⁸ Report of the March 2022 SSC Meeting. p. 11.

the PHD and Draft Environmental Assessment (Draft EA) rebuilding trajectory for FY 2023.³⁹ The legal requirement to select catch limits that do not exceed the SSC's ABC recommendation was brought to the attention of the MSB Committee at the May 16, 2022 meeting. In response, NOAA General Counsel stated that the SSC considered all alternatives to be "viable for a rebuilding plan" and that "without explicitly saying it … the SSC was giving its blessing for any of the ABCs for 2023 as they appear in each of these alternatives."⁴⁰

That interpretation, however, is not apparent from the SSC's report and in fact is contradicted by their clear recommendation for Alternative 2 (Alternative 3 in the PHD and Draft EA). To reiterate, the summary of the SSC meeting states:

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³⁹ 2022. MAFMC. <u>Mackerel Rebuilding, Version 2 PHD</u>. p. 26-28

⁴⁰ MAFMC May 16, 2022 MSB Committee Meeting Recording, at 1:16:25.

This table summarizes the alternatives specified by the Council and gives the calculated 2023, 2024, and total rebuilding plan (2023-2032) ABC estimates. Note that an OFL CV probability of 150% applies to alternatives 2 and 5. The SSC recommends Alternative is 2: Split standard P* (see ToR 1).

	Reb Alte N	ouilding ernative Name	Rebuilding Risk Policy	Recruitme nt	Probabili ty Rebuild by2032	F (2023/202 4 if multiple)	Rebuilt by (median)	2023 median Catch/ ABC (mt)	2024 median Catch/ ABC(mt)	Rebuild Plan median catch/AB C 2023- 2032 (mt)
	1. 20 R	009+ Rebuild	50% chance of rebuilding by 2032	2009+	56.6%	0.01	June 2031	703	865	12,866
	2. S st P	Split tandard >*	Use basic P* as rebulding plan.	Split at 1/2 Bmsy	51.5%	0.07/ 0.08	June 2031	4,539	6,207	171,291
	3. S 6 r	plit 0% ebuild	60% chance of rebuilding by 2032	Split at 1/2 Bmsy	60.5%	0.12	June 2031	8,094	9,274	144,147
	4. S 5 r	Split 50% ebuild	50% chance of	Split at 1/2 Bmsy	53.4%	0.14	June 2032	9,371	10,591	157,821
			rebuilding by 2032							
4	5. Sp rel wi de	olit 50% build ith P* eduction	Use rebuild F from split 50% chance ofrebuild and then deduct per P* as if rebuild F was overfishing F	Split at 1/2 Bmsy	62.3%	0.04/ 0.05	June 2029	2,976	4,168	134,022

Table 1. Atlantic Mackerel Rebuilding Options Summary

The SSC reviewed all alternatives and recommends the P* approach with the maximum fishing mortality threshold (MFMT) equal to the Fmsy proxy (Alternative 2).⁴¹

⁴¹ March 28, 2022. MAFMC, SSC. Memorandum from SSC Chair Paul J. Rago PhD to MAFMC Chairman Michael P. Luisi, <u>Report of the March 2022 SSC Meeting</u>. p. 10-11.

The Council justified its recommendation of the rebuilding trajectory offered in the Proposed Rule be stating that all five rebuilding alternatives are "endorsed by the SSC as being consistent with the best available science,"⁴² the relevant part of the SSC Report states: "The SSC believes these recommendations [for Alternative 2 (Alternative 3 in the PHD and Draft EA)] meet National Standard guidelines for best available scientific information available." The SSC provided insight on all the alternatives certainly based on the best available science, but their *only* "recommendation" was for Alternative 2 (Alternative 3 in the PHD and Draft EA)]

The MSA, NS1 guidelines, and caselaw⁴⁴ are clear that NMFS cannot approve an action with catch limits that exceed the SSC ABC recommendations. Without remanding the SSC's advice for further guidance, the Council is limited to selecting PHD Alternatives 1, 2 or 3 which do not contain catch limits that exceed the SSC ABC recommendations for FY 2023 and 2024.⁴⁵ If NMFS approves and finalizes the rebuilding trajectory offered in the Proposed Rule and the associated ABCs in Table 1 of the Proposed Rule, it will be doing so in violation on the MSA.

NMFS must consider the cumulative impacts of the Proposed Rule in the face of climate change and consider the cumulative impacts of the Proposed Rule on a depleted Atlantic Ocean forage base when setting the rebuilding trajectory for Atlantic mackerel

The EA must evaluate and consider the cumulative impacts of the Proposed Rule's rebuilding trajectory and climate change

The combined and cumulative impacts of the rebuilding plan and climate change to the Atlantic mackerel stock and to the ocean ecosystem are a serious concern. NEPA requires that federal agencies analyze the impacts of any federal action that might "significantly effect" the quality of the human environment.⁴⁶ NEPA also specifically requires that the EA assess cumulative impacts of federal agency actions.⁴⁷ Cumulative impacts are defined as "the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."⁴⁸ As stated above, the Draft EA fails to conduct a thorough evaluation of the combined impacts of the Proposed Rule's rebuilding trajectory and climate change on the seriously depleted and overfished Atlantic mackerel stock. NMFS must conduct this assessment prior to making any decision about whether to approve or disapprove all or part of the Proposed Rule.

While fishing and specifically overfishing remain the greatest threat to the Atlantic mackerel stock, climate change also remains a significant threat.⁴⁹ The Draft EA discusses climate change and recognizes that it will have a moderate negative impact on Atlantic mackerel.⁵⁰ It also states that "climate change will [] potentially exacerbate the stresses imposed by fishing and other non-fishing human activities and

⁴⁹ 2020. Boyd, Robyn. et. al. Potential Consequences of Climate and Management Scenarios for the Northeast Atlantic Mackerel Fishery. Frontiers in Marine Science, Vol 7., Art. 639. (Aug. 5, 2020).

⁴² June 2022. MAFMC. <u>Hybrid Council Meeting notification and agenda</u>.

⁴³ March 28, 2022. MAFMC, SSC. Memorandum from SSC Chair Paul J. Rago PhD to MAFMC Chairman Michael P. Luisi, <u>Report of the</u> March 2022 SSC Meeting. p. 10-11.

⁴⁴ See Conservation L. Found. v. Pritzker, 37 F. Supp. 3d 254, 267 (D.D.C. 2014).

⁴⁵ 2022. MAFMC. Mackerel Rebuilding, Version 2 PHD. p. 24-28.

⁴⁶ 42 U.S.C. §4332(2)(C).

⁴⁷ 32 CFR 1508.25(c). This is true even if NMFS prepares and EA and not an environmental impact statement (EIS). *See Native Ecosystems Council v. Dombeck*, 304 F.3d 88, 895-97. (9th Cir. 2002) which states, "NEPA always requires that an environmental analysis for a single project consider the cumulative impacts of that project together with "past, present and reasonably foreseeable future actions." *See* 40 C.F.R. §§ 1508.7, 1508.25(b)(7) (2001); *Hall v. Norton*, 266 F.3d 969, 978 (9th Cir. 2001); *Kern v. United States Bureau of Land Management*, 284 F.3d 1062, 1075-76 (9th Cir. 2002).

⁴⁸ 32 CFR 1508.1(g)(3).

⁵⁰ 2022. MAFMC. <u>Mackerel Rebuilding, Version 2. Draft EA</u>. p. 137-138.

stressors,"⁵¹ and that "already stressed populations are expected to be less resilient and more vulnerable to climate change."⁵² This is precisely the situation we have here with the Atlantic mackerel stock. Yet there is zero analysis that assess the cumulative impacts of the Proposed Rule's rebuilding trajectory and its associated catch levels on the significantly depleted and overfished mackerel stock that is less resilient to the simultaneous impacts of climate change.⁵³

In evaluating cumulative impacts of the Proposed Rule on the physical environment, the Draft EA states, "some actions, such as coastal population growth and climate change may impact habitat and ecosystem productivity; however, these actions are beyond the scope of NMFS and Council management," and thus does not evaluate the cumulative impacts of the Proposed Rule and climate change on the ocean ecosystem.⁵⁴ However, how climate change impacts habitat and ecosystem productivity is certainly an aspect of managing species like Atlantic mackerel, its predators, their ecosystem, and their habitat. In fact, NMFS has outlined its "Climate Science Strategy" that identifies one of its main objectives as identifying "robust strategies for managing [living marine resources] under changing climate conditions."⁵⁵ Additionally, NMFS is actively working with the Mid-Atlantic Council and other councils on the East Coast Climate Change Scenario Planning Initiative to guide the management of fisheries in the face of a changing climate in the Atlantic Ocean.⁵⁶ Managing the mackerel fishery in a way that considers and accounts for climate change is required. NMFS and the Council also have committed to using the ecosystem approach to fisheries management (EAFM) to guide decision making, with the clear goal of managing fisheries in a way that "maintains ecosystem productivity, structure, and function." As part of their EAFM guidance the Council climate policy statements include a commitment to "develop and evaluate approaches for MAFMC fisheries and their management to become more adaptive to change."57

The Final EA must evaluate and consider the cumulative impacts of the rebuilding trajectory in the Proposed Rule on the Atlantic Ocean ecosystem in the face of a depleted forage base

NEPA requires that the Final EA evaluate and consider the impacts of the Proposed Rule in conjunction with climate change and other impacts to the ocean ecosystem that has a depleted forage base due to overfishing of other managed forage species.⁵⁸ As part of their EAFM guidance, the Council committed to "support the maintenance of an adequate forage base in the mid-Atlantic to ensure ecosystem productivity, structure and function and to support sustainable fishing communities."⁵⁹ Forage fish are an essential centerpiece to a healthy marine ecosystem and facilitate the transfer of energy that connects upper and lower trophic levels. Maintaining healthy forage stocks is essential for ocean ecosystem health and productivity and the economies of coastal communities along the mid-Atlantic coast. Atlantic mackerel is a key part of the forage base of the mid-Atlantic that supports the populations of many larger fish and their associated fisheries including bluefish, sharks, and tunas. A successful recovery of this species will improve more than just this species' population and its reliant fishery, it will also improve overall ecosystem health, and help support many other predator species that contribute to the ocean ecosystem and coastal communities in the mid-Atlantic.⁶⁰

As stated before, the mackerel stock is so severely depleted that its population is a small fraction of what it was in the 1970's. But mackerel is not the only struggling forage species in the region. Atlantic herring

⁵¹ Id. at. p. 135.

⁵² *Id.* at. p. 136.

⁵³ *Id.* at. p. 140.

⁵⁴ Id.

⁵⁵ 2015. NMFS. <u>NOAA Fisheries Climate Science Strategy</u>.

⁵⁶ MAFMC. East Coast Climate Change Scenario Planning.

⁵⁷ 2016. MAFMC. Ecosystems Approaches to Fisheries Management Guidance Document. P. 17

⁵⁸ 32 CFR 1508.25(c).

⁵⁹ 2022. MAFMC. <u>Mackerel Rebuilding Plan Version 2 PHD</u>. p. 15.

⁶⁰ The Pew Charitable Trusts. Fishery Council Should Follow Law and Science on Mackerel Policy. August 9, 2018.

are fished by many of the same boats as mackerel, and were declared overfished in October 2020 and entered a rebuilding plan in September 2021.⁶¹ Butterfish are considered "below target level"⁶² and 2021 specifications for butterfish reduced catch by 72 percent stating that "the 2020 butterfish management track assessment found butterfish to be not overfished with no overfishing occurring in 2019, but if the full ABC had been caught, projections suggest overfishing would have occurred and the stock would have become overfished."⁶³ River herring (blueback and Alewife) and shad (American and hickory) whose populations used to be in the hundreds of millions, are now severely depleted and are at or near historic lows.⁶⁴

The depletion of all the managed forage species has driven the commercial fishing industry to apply for an experimental fishing permit to explore potential exploitation of thread herring – currently included in the Council's Unmanaged Forage Omnibus Amendment (UFOA) that prohibits directed commercial fishing on unmanaged forage species in Mid-Atlantic waters without first scientifically assessing the impacts of a new directed fishery on current fisheries, fishing communities, and the ocean ecosystem.⁶⁵ The value of forage to the ocean ecosystem and to predator fish and their reliant commercial and recreational fisheries is so important that the Council and NMFS implemented the UFOA that amended all fishery management plans managed by the Council to ensure the "precautionary approach" was invoked when opening a new fishery on a forage species.⁶⁶

As part of the decision-making process, NMFS must consider these cumulative impacts. Given these cumulative impacts and NMFS' commitment to protecting forage, implementing EAFM, and addressing climate change in the management of our nation's fisheries, a more precautionary approach to managing this severely depleted forage species is required. NMFS should disapprove the Proposed Rule's recommended mackerel rebuilding plan and its associated ABC and remand the rule back to the Council with a recommendation that they further develop and adopt Alternative 1 in the Draft EA and implement the P* deduction in the Council's risk policy.

NMFS should disapprove the status quo RH/S catch cap of 129 mt and recommend that the Council follow its decision in Mackerel Rebuilding Plan 1.0 and scale the RH/S catch cap to the mackerel DAH with a lower limit of 89 mt and an upper limit of 155 mt

RH/S are important forage fish that tie our oceans and rivers systems together through their annual migrations. The best available science says that coastwide, RH/S stocks remain at or near historic low population levels, with some individual river systems on the verge of collapse. This is particularly true regarding the distinct population segment of blueback herring in the mid-Atlantic and southern New England that are being caught in the mackerel and Atlantic herring fisheries. Updated science highlights the need to reduce bycatch mortality, estimating that within a four year period, bycatch took 4.6 million alewife and 1.2 million blueback herring.⁶⁷ The scientists also note that there has been a decrease in mean length, maximum age, and repeat spawner percentage across the species' range that "can be indicative of overfishing and can result in reduce reproductive output..., which may further threaten the persistence of river herring."⁶⁸ When the RH/S catch cap was originally implemented, the Council's stated goal was to replace the RH/S catch cap – which was based on the level of mackerel catch – with a catch limit based

⁶¹ Sept. 2021, NEFMC. <u>Atlantic Herring: Council Approves Stock Rebuilding Plan</u> and Adjustments to Accountability Measures in Framework 9.
⁶² NOAA Species directory. <u>Butterfish</u>.

⁶³ Fisheries of the Northeastern United States; <u>Atlantic Mackerel</u>, <u>Squid</u>, and <u>Butterfish Fisheries</u>; <u>Specifications</u>.

⁸⁶ Fed. Reg. 38586, 38587.

⁶⁴ ASMFC, <u>Shad & River Herring</u>, Accessed December 13, 2022.

⁶⁵ 2017. MAFMC. <u>Unmanaged Forage Omnibus Amendment</u>, p. 3.

⁶⁶ Id.

⁶⁷ Nov. 2022. Reid, et. al. Spatial and temporal genetic stock composition of river herring bycatch in southern New England Atlantic herring and mackerel fisheries. Canadian Journal of Fisheries and Aquatic Sciences.

⁶⁸ Id. at. p. 23.

on the biology of RH/S and the needs of their many predators. This has not happened. The current RH/S cap is *still* not based on what the four RH/S species can sustain and remains based solely on the directed catch of mackerel.

If NMFS disapproves the rebuilding trajectory in the Proposed Rule and remands it to the Council with the recommendation that they replace it with the low-recruitment rebuilding trajectory as we hope they will, a closure of the directed fishing will be necessary in 2023 and possibly for the foreseeable near future. In that instance, the RH/S cap would also be zero as the cap does not apply to incidental catch. If Alternative 1 is not implemented, NMFS should recommend that the Council adopt the 0.89 ratio of cap to catch on all mackerel trips with a floor of 89 mt and a cap of 155 mt. If allowable catch for mackerel is 10,000 mt or less, the RH/S cap should be 89 mt. If the mackerel catch is higher than 10,000 mt than the RH/S cap should be scaled up at 0.89 ratio of cap to catch, but not to exceed 155 mt. Additionally, when the mackerel U.S. commercial quota is over 10,000 mt the RH/S cap should start out low at 89 mt, and then when 10,000 mt of mackerel is landed, the RH/S cap can scale up using the 0.89 ratio, but again not to exceed 155 mt. This slow start is to maintain a strong incentive to avoid RH/S bycatch early in the season and avoid a closure of the mackerel fishery that would prevent the mackerel fishery from realizing its full mackerel catch. If the 89 mt RH/S cap is reached before 10,000 MT of mackerel had been landed, the mackerel fishery would close. Additionally, if the scaled RH/S cap is reached before mackerel catch is realized, the fishery would close.

The original intent of the RH/S catch cap in the mackerel fishery (even one based in the allowable catch of mackerel) was to create a strong incentive to avoid catching RH/S and decreasing the catch of these species over time so that the RH/S population has an opportunity to recover.⁶⁹ The status quo cap of 129 mt will not accomplish this and NMFS should disapprove that element of the Proposed Rule and remand it to the Council for reconsideration.

NMFS should disapprove the Atlantic mackerel recreational catch limit of 2,143 mt and recommend that the Council set the recreational catch limit at zero in the EEZ in the near term and set a 10 fish bag limit for the recreational fishery

Regulation of the recreational mackerel fishery has historically been limited or absent, and this Proposed Rule, if approved, will implement the first mackerel recreational management measures in the U.S. This is a step in the right direction as all relevant catch should be appropriately managed. While it remains unclear how much the recreational fishery contributed to the decline of the stock, with the future of mackerel in the northwest Atlantic in peril, it is appropriate to look across sectors for conservation gains. In general, recreational catch of mackerel has been relatively low. However, in recent years including the three initial years of Mackerel Rebuilding Plan 1.0, recreational catch was a higher percentage of overall catch, making regulations for recreational catch an important and appropriate part of Mackerel Rebuilding Plan Version 2.

The Proposed Rule suggests setting a recreational catch of 2,143 mt. NMFS should disapprove this recommendation and remand it to the Council for reconsideration. If the directed commercial fishery must be closed to prevent further decline of the stock, the same should be true of the recreational fishery. The Final Rule should set a rebuilding plan that closes all directed fishing in the EEZ, both commercial and recreational, in the near-term. Once mackerel recovers and directed fishing becomes scientifically feasible, NMFS should recommend that the Council set a recreational catch limit based on what the stock can sustain and not on historic catch.

⁶⁹ The Pew Charitable Trusts. <u>Mackerel Policy Could Greatly Affect Other Forage Fish</u>. August 13, 2018.

Additionally, the Proposed Rule recommends a 20-fish bag limit for recreational fishing in the EEZ. This should also be disapproved. NMFS should remand the rule back to the Council and recommend that they require a 10-fish bag limit for recreational fishing in the EEZ and encourage the states to follow suit in their waters.

Require a minimum codend mesh of 3 inches

NMFS should recommend that the Council include in the Proposed Rule, a 3-inch minimum mesh requirement that mirrors a similar requirement in the butterfish fishery for trawl vessels possessing more than 5,000 pounds (2.27 mt) of mackerel harvested in or from the EEZ. Selectivity in catch of forage species is important. Increased mesh size would allow for smaller and undersized mackerel to escape giving more individual fish the opportunity to contribute to the SSB, recruitment, and ultimately the recovery of the mackerel stock.

Conclusion

NMFS faces a critical decision with the Proposed Rule for Mackerel Rebuilding Plan Version 2. The closure of directed commercial and recreational fishing is never an easy choice to make. Allowing management to follow the historic pattern of relying on unsupported recruitment projections inconsistent with the best scientific information available will produce the same result: overfished with overfishing that has been the status quo for decades. The mackerel stock is estimated at less than one fourth of the rebuilding target. Other important forage species like Atlantic herring and butterfish are also struggling despite policy commitments from NMFS and the Council. The impacts of a weakened forage base reverberate through the entire ocean ecosystem as well as through the fisheries and communities that depend on marine resources. To recover this ecologically important species, directed fishing must cease in the near term to allow for stock recovery.

We urge NMFS to disapprove the Proposed Rule, and remand it back to the Council with the recommendation that they further develop and adopt Alternative 1 from the Draft EA and apply the P* deduction in the Council's risk policy and propose a rebuilding plan for Atlantic mackerel that will immediately end overfishing, rebuild the mackerel stock in as short of a time as possible as mandated by the MSA, and has the highest overall probability of rebuilding this important forage stock to a healthy abundance.

Pew, CLF, NRDC, BNEC appreciate the opportunity to comment on this action. Thank you for considering these comments in your deliberations and we look forward to the NMFS' final decision.

Sincerely,

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