



**Paul J. Diodati**  
*Director*

# *Commonwealth of Massachusetts*

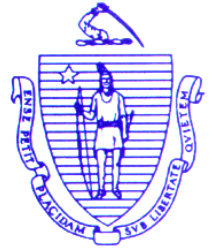
## **Division of Marine Fisheries**

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November 4, 2011

Mary Colligan, Assistant Regional Administrator  
National Marine Fisheries Service  
55 Great Republic Drive  
Gloucester, MA 01930

Dear Ms. Colligan:

Thank you for holding the three public scoping meetings concerning amendments to the Large Whale Take Reduction Plan (TRP). Although the public comment period has ended, I would like to provide some viewpoints on the development of the TRP. I hope they are helpful.

The Commonwealth's Division of Marine Fisheries (*Marine Fisheries*) has been a proactive member of the Large Whale Take Reduction Team (TRT) since its inception. Thanks to National Marine Fisheries Service (NMFS) financial support and cooperation from your agency and other partners, our Right Whale Conservation Program is the most comprehensive of any jurisdiction. Our regulatory scheme designed to minimize harm to endangered whales is the most creative and restrictive and has been the model for many others.

*Marine Fisheries* has worked closely with fixed gear fishermen for the past 15 years to investigate the most efficient and practical ways to reduce entanglement risk for the industry and has crafted regulatory schemes that are workable, rational, and verifiable. We know NMFS appreciates the leadership the Commonwealth has demonstrated on many of the successful conservation strategies including the sinking groundline initiative, seasonal gear marking, and abandoned gear removal. Both NMFS and *Marine Fisheries* have supported the successful Disentanglement Program conducted by the Provincetown Center for Coastal Studies to reduce harm to endangered whales that become accidentally entangled. As you know entangled whales often carry gear for months or years before shedding the gear or succumbing to it and the seasonal aggregations of whales off Massachusetts provides unique opportunities for intervention.

Support from the fishing industry for these conservation programs continues. Many industry members understand the sober reality of the status of the endangered whales and the unique responsibility placed upon them as they ply their trade in waters frequented by these animals. The industries that fished the whales to near extinction are a part of our heritage but no longer part of the maritime culture and economy. However, moving forward with new regulatory proposals will be far more challenging.

After many years of successfully bridging industry and regulatory needs, the TRT's effectiveness has diminished considerably for a variety of reasons. Primary among them is that it has become extraordinarily difficult to enlist industry support for new initiatives. The "low hanging fruit" of whale conservation measures have been implemented, and now the objectives and proposed

measures are far more difficult. *Marine Fisheries* staff are receiving unprecedented opposition to the new developments of the TRP.

In the following pages, we present our views of the challenges that beset NMFS, the states, and the TRT, and we follow with a more detailed analysis of the principles put forth by this scoping process. Finally, practical recommendations for future strategies are provided that NMFS should consider before any proposed rule is drafted.

## Challenges

**Many in the industry fail to appreciate the mandates of the Marine Mammal Protection Act (MMPA) to reduce takes of large whales because the strategic stocks are rebuilding at impressive rates.** NMFS reminds the industry on a regular basis about the ongoing failure of the TRP to meet potential biological removal (PBR) goals, while stocks are clearly increasing. The most critically endangered stock, the northern right whale, has increased substantially (as much as 50%<sup>1</sup>) since the team was first convened in 1996. Humpback whales, including those in the Gulf of Maine, are currently experiencing maximum growth rate, in excess of 6% annually. Moreover, industry is aware of NMFS internal deliberations to reassess the status of the humpback whale under the Endangered Species Act (ESA). Many industry members believe their personal sacrifices to replace certain gear that is considered “safer” for whales (e.g., sinking groundline) contributed to these positive trends in the populations.

**Many in the industry are exasperated because they believe that PBR goals for these strategic stocks cannot be achieved even with draconian restrictions levied on the fishing industry.** There is widespread fear among the northeast U.S. fixed gear industry that it will be sacrificed to achieve PBR goals – leaving the international shipping industry and Canadian fixed gear fisheries unscathed. Because monitoring of the effectiveness of the new TRP strategies will be based on Serious Injury and Mortality relative to the PBR rate, it is feared that these metrics include impacts from all anthropogenic sources such as vessel strikes in Canada and the U.S., as well as Canadian fishing gear. The impact of any new strategy affecting vertical lines in the U.S. fishing industry cannot be calculated relative to PBR. Thus the benefits of new buoy line strategies will be obscured by other impacts.

**Many in the industry are frustrated because they believe that government agencies and conservation groups have not appropriately recognized industry’s past conservation sacrifices nor conceded risk reduction attributable to these measures.** While it is difficult to measure the risk reduction to endangered whales from U.S. fishing regulations alone, each professional fisherman knows personally what his financial costs have been to comply with the existing rules enacted over the past decade. For example, the up-front costs of line replacement when the regulations were enacted (2003 in MA and 2008 among other jurisdictions) and the costs of increased line wear and trap loss are real and calculable. Comments we received at the public

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<sup>1</sup> In 1996 the population estimate presented to the TRT was 300. In 2010, the middle estimate in the Right Whale Consortium “Report Card” was 474. Though the methods of calculation of these two values may not be comparable, the scientific community recognizes the population growth over this period and this increase is frequently cited by the industry.

hearings reveal that fishermen believe the MMPA and ESA mandates are insatiable and will inevitably threaten the existence of the fisheries.

**Uneven standards of reporting and data collection among jurisdictions cast doubt that the models and the follow-up assessment of compliance and impacts will be accurate.** As you know, there are many segments of New England fixed gear fisheries that are not required to submit reports on their fishing activity, while others have a mandate to submit trip-level reports on all fishing activity.

### Comments on Scoping Process and Documents

**Effective gear modifications are not yet available.** It has proven to be extremely difficult to create new conservation measures for the fixed gear fisheries. Despite a decade of government and private funded research, we have been unable to delineate specific goals for risk reduction and develop appropriate gear modifications.

NMFS, state partners, commercial fishermen, and conservation community members have worked on gear research since 1996 to devise gear modifications but have not yet produced any buoy line modifications that are workable for the industry. Vertical buoy lines remain an integral component of gear allowing fishermen to mark, relocate, and retrieve their personal investment in fishing gear from the ocean floor. Without functional buoy lines the industry would be bankrupted and gear losses would be staggering.

Minor modifications to buoy lines may also cause harm to the industry without providing sufficient benefit to whales. For example, we have concerns about weak buoy lines to minimize harm to whales if the design results in a line too weak for the operational needs of the industry. Weak buoy lines could be subject to widespread failure in storms such as the recent Hurricane Irene that saw many lobstermen lose gear to high winds.

Furthermore, adoption of weak buoy lines would not necessarily translate into conservation goals being met. It is likely that we will continue to see cases of entangled whales but they will be non-lethal (i.e., whales will successfully part off the line but carry rope fragments on their body for extended periods). These entanglements will still be classified as a “take.” As long as entanglements still occur, the TRP’s conservation goals and the expectations of the conservation community may not be met.

**Vertical line reduction impacts fishermen unevenly for negligible benefit.** Absent any acceptable gear modifications, the TRT’s focus has shifted to reducing the number of vertical lines. Using sophisticated modeling by the contracted consultant, Industrial Economics, the NMFS-led TRT’s attention now centers on creating models to assess yet-to-be identified management strategies in discrete areas that would place restrictions on permit holders’ fishing activities, ultimately resulting in fewer buoy lines. The path that NMFS appears to favor is an option to reduce the number of buoy lines through a regulatory strategy.

The most common strategy informally discussed is “trawling-up” under which lobstermen would be banned from fishing single traps (one buoy line on each trap), and instead would be required to

fish multiple trap strings called “trawls” with a buoy line marking each end of the trawl or only one end of the trawl. In our view the benefits of “trawling up” will be negligible and have an inordinate impact on fishermen with small vessels and small-scale operations.

Single traps are already banned in federal waters, so this measure will affect only those fisheries occurring in state waters, an area less frequented by whales. The burden of this rule will be felt solely by those vessels that fish very close to shore; in most cases, these vessels are the smallest in the fleet (16 to 24 feet). Most of these operations are single-handed and cannot accommodate a string of traps aboard the deck of a small vessel. NMFS should ensure that the benefits of the strategy are real and calculable before enacting rules that will likely eliminate the small vessels that fish near shore.

**Proposals to require trawling-up and single buoy line fishing have unintended consequences.**

Additionally, fishermen have protested repeatedly about these proposals calling them unsafe and impractical. They have convincingly forecasted the gear conflicts that will occur among fixed gear fishermen and between mobile gear and fixed gear fishermen if fixed gear is insufficiently marked. Single buoy line trawl fishing is impractical because it will result in gear conflicts among competing lobstermen, as well as mobile gear fishermen who cannot get an accurate read on the location and direction of the setting of trawls.

*Marine Fisheries* staff have raised concerns about the ecological impacts of increased lost lobster gear on fish and invertebrate populations that would result. “Ghost trap” fishing is a focus of NOAA Marine Debris program studies including an ongoing study in Massachusetts waters. Single buoy lines on just one end of lobster trawl will create unprecedented amounts of lost and abandoned gear. Our early results show that mortality inflicted on local fish and crustacean populations is higher than previously perceived and we anticipate growing societal demand to avoid and even remove abandoned gear from the ocean in the future to minimize mortality of fish and invertebrates in lost traps. Note that the mandated use of sinking groundline by lobster trap fishermen is already contributing to the increased incidence of lost traps, according to industry testimony.

Finally, there are some serious reservations that have been raised by inshore fishermen who have questioned the wisdom of the trawling-up because it may increase harm in some circumstances. While trawling-up may reduce the amount of vertical buoy lines, it will likely result in increased risk when an entanglement occurs in this heavier gear. Single trap fishermen usually fish thinner and weaker rope in their buoy lines than those fishermen deploying trawls. Finally, it is common knowledge that the risk inherent in an entanglement with a single trap buoy lines is less than that with a trawl buoy line. It’s intuitive and well documented in the entanglement records that multiple trap trawl entanglements often result in whales becoming anchored in the gear, leading to more serious injuries from struggling to be free of the gear or from carrying the heavy load for extended periods. The Disentanglement Program records are full of successful disentanglements when single traps are involved or the gear is often shed by the whale on its own.

A trawling-up requirement might be devastating to the Outer Cape Cod region, a unique nearshore fishery that has its own Lobster Conservation Management Area (LCMA). This area is exposed to violent storms and dynamic sea conditions. Most fishing is conducted from the shore out to 3 miles using single traps especially in summer when the migration of lobsters is in shallow,

nearshore waters. The fishery relies on traditional single trap fishing as a means to reduce gear conflicts and gear loss. Multiple-pot trawl fishing would result in storm damage and tangled gear, whereas the single traps fare better as they are moved without entangling other gear,. Most fishermen in this region do not have federal permits so they restrict their fishing to the narrow 3-mile zone alongshore from Nauset Inlet north to Provincetown Harbor.

**Latent effort: the undermining X factor.** NMFS preferred path to reduce the number of buoy lines through a regulatory strategy has unfortunately omitted any plans to control the overall amount of fixed gear being fished. The safest, most accurate long-term way to reduce buoy lines is through a reduction in effort, not through small scale manipulation of gear configuration.

As long as the individual fisheries have substantial latent effort (un-fished permits or active permits fishing less than the allowable amount of fixed gear) reductions in buoy lines achieved through regulations could be compromised. Rules governing the setting of gear for a given fishing operation could be negated by effort increases by the current fishery participants or new entrants into the fishery. This is not a minor issue.

We can provide a profile of latent effort in Massachusetts state waters: Despite the coastal lobster fishery in state waters being subject to limited-entry and strict transfer criteria, not all permits are fished and not all fished permits are used to their full extent. The bottom line is there is the potential for a 100% increase in traps fished in the Massachusetts portion of the Gulf of Maine given the level of latent effort. There are approximately 1,300 permits issued for the state waters in Lobster Conservation Management Area 1 and about one-third of them are un-fished. Of the two-thirds that are fished, the average number of traps is approximately 450, far less than the 800 trap limit.

To promote attrition in the fishery, *Marine Fisheries* enacted performance criteria for permit transfers a decade ago. Un-fished permits are not approved for transfer outside of the immediate family and are usually surrendered to the agency. An 18 % decline in permits (295) has been observed over the past 15 years. This attrition was accomplished by design and is attributable to the strict permitting and transfer rules.

In 2003, Massachusetts took action to prevent the proliferation of federal vessels lobster trap fishing in waters adjacent to the Commonwealth by placing a moratorium on the issuance of new Offshore Lobster permits. This prevented any lobster trap fisherman who held a state and federal permit from creating a second lobster business by splitting the permits to separate vessels. Without an Offshore Lobster permit, lobsters can't be landed in Massachusetts ports. Moreover, this prevented vessels with federal lobster permits from other regions migrating to the Commonwealth.

Latent effort is rampant in most of the Gulf of Maine inshore fishery (LCMA 1) and may be higher in states beyond Massachusetts. Any rules that may tweak the operating standards for an individual fisherman could be undermined by increases in effort by either that same fisherman or others who hold permits but don't fully utilize them.

The situation is somewhat different in the fisheries offshore (LCMA 3), the Outer Cape Cod LCMA, and in southern New England of RI and MA (LCMA 2). These areas have more

aggressive effort control plans with history-based eligibility criteria for current participants. Each area has initiated aggressive trap allocation reductions.

Consequently, the degree of un-fished permits and trap allocation is much less in these areas. Outer Cape Cod has the most aggressive effort control plan with a 20% decline in traps fished over the past 6 years and practically no un-fished trap allocation (less than 3%). In southern New England, the un-fished allocations are somewhat higher (around 30%) but this area is seeing a dramatic reduction in traps fished caused by stock declines. Pending management action by ASMFC is expected to further reduce fishing effort in this region.

While the lobster fishery in southern New England is being constrained by current and future effort control measures by ASMFC, there is growing concern about an unregulated trap fishery for Jonah crabs in the EEZ portion of southern New England. This fishery may only be conducted by those vessels that do not have a federal lobster permit. ASMFC and state officials have urged NMFS to address this growing fishery but these requests have gone unanswered. We urge you to hold internal discussions between Protected Species staff and Sustainable Fisheries staff to find ways to close this loop-hole.

Please consider the amount of latent effort that exists in each of the jurisdictions (including federal permits issued by NMFS) before moving forward with any strategy that requires effort controls or that assumes effort would be static. You should consult your permitting and lobster management staff at NMFS for detailed guidance on this issue.

**NMFS efforts to manage risk at “co-occurrence area” level will not be documentable.** The new strategy – put forth by NMFS and the TRT to identify and then regulate within so-called co-occurrence areas where whales and gear overlap temporally and spatially – will be unworkable. This layer of proposed management is largely incompatible with existing management schemes established by various fisheries management plans. While it seems appropriate to limit the regulations to these areas to focus regulatory burden and impacts in co-occurrence areas, we believe it will be impractical for two reasons: inappropriate management scale and insufficient data collection.

Co-occurrence areas as depicted are likely too small if controls on effort are critical to achieving the goal. Risk reduction could be accomplished through discrete areas if the strategy was only a simple but significant gear modification. For example, NMFS Seasonal Area Management (SAM) strategy required a severe gear modification in the area compared to the surrounding area.

Because there are insufficient data about existing gear configurations and effort levels in the larger areas, and little expectation to get more refined data about fishing within smaller managed areas, then there is little hope to document the actual risk reduction and effectiveness of the strategy. Simply put, it will become a paper exercise only.

The co-occurrence zones, if enacted (and enforced), do not align with long-standing statistical areas and LCMAs enacted by NMFS, the states, and ASMFC. The current lobster stock assessment already suffers from the inaccurate reporting caused by the disconnect among stock units, statistical areas, and LCMAs.

**Data shortfalls will undermine our ability to assess risk reduction and compliance.** While the accuracy of reporting is problematic in any assessment, the lack of effort reporting among lobstermen and some fixed gear fishermen further weakens managers' ability to track these fisheries. There are a surprising amount of fishermen who are not required to report their fishing activities; thus while dealer data captures landings data, information on traps hauled, traps fished, gear location, or buoy lines is not collected. For example, only 10% of Maine permit holders are required to report, and those federal lobster permit holders who do not hold a multispecies groundfish or scallop permit are not bound by federal regulations to submit vessel trip reports. Consequently, calculated estimates of change in fishery performance statistics will be subject to significant error and bias.

The Commonwealth, on the other hand, requires universal trip level reporting. Additionally, we developed a supplemental end-of-year catch report to allow all fixed gear fishermen to also report monthly tallies of buoy lines. We foresaw the need to document buoy counts as both a precursor to developing a strategy to reduce risk and a means to get credit for the ongoing attrition of effort (and buoy lines) in our inshore fisheries. However, no other jurisdictions have followed our lead in proactively developing baseline buoy line data, thus no other jurisdiction will be able to assess the effectiveness of a buoy ling reduction strategy.

As noted above there are enormous gaps in data collection that need to be addressed. Too many fisheries in various jurisdictions are exempt from reporting and none beyond Massachusetts are reporting buoy line counts. Please note that Massachusetts fishermen have expressed frustration and mistrust toward *Marine Fisheries* about these uneven standards of data collection and some fear the data rich jurisdictions (like Massachusetts) will be unfairly penalized as a result of reporting their landings and effort.

The options available to the TRT are few and confounded. Risk reduction is nearly impossible to quantify for any single gear configuration. Despite years of research and millions of dollars in government and private research funds, the best and brightest have failed to devise any buoy line that can reliably or substantially reduce risk while still serving the fishing industry as a safe and reliable means to relocate and retrieve the gear.

**For humpback whales, NMFS may be overly cautious in the calculation of the size of the population (feeding unit) and the attribution of all east coast mortalities to the Gulf of Maine feeding unit.** NMFS should improve the precision around the population size of Gulf of Maine humpback whales. If the current statistical method (transect counts) is resulting in population estimates that are too variable, then the resulting  $N_{\min}$  value and the associated PBR value are too low. An improved population estimate, incorporating new techniques (such as mark-recapture methods) that can decrease the uncertainty around the estimate, would benefit the population assessment, raise the PBR, and reduce some of the burden on NMFS, the TRT, and the regulated industries.

The tallies of annual deaths attributable to the GOM feeding unit may be inflated as well. NMFS decision to take a conservative approach by assigning all southeastern U.S. and Mid-Atlantic humpback whale deaths to the GOM feeding unit may be inappropriate if some of these mortalities may actually be from non-Gulf of Maine feeding units, such as the group that summers

in the Gulf of St. Lawrence or Newfoundland. NMFS should invest resources to resolve these questions.

Finally, and most substantively, NMFS should accelerate its internal analysis regarding the reclassification of humpback whales under the ESA. If humpback whales were delisted from the current endangered status, the recovery factor could be increased in the PBR calculation and PBR could be increased 5- or 10-fold. It's difficult to explain to the industry why a species that is experiencing its maximum growth rate in excess of 6% annually should be subjected to the most conservative recovery factor of 0.1 in the calculation of PBR. This resolution may need to be addressed through legislation.

For fishery managers, the MMPA and ESA mandates can be a tough sell. Increasingly commercial and recreational fishermen as well as the general public perceive humpback whales off the New England coast as no longer endangered. The highly successful whale watch industry is built on pursuit of these whales and the frequency of sightings during the spring, summer, and fall months on popular fishing grounds are now exceedingly common and growing, reflecting the annual growth rate that is exceeding 6% annually and is considered the maximum for this stock.

**Buoy line marking should be practical and universal.** We support gear marking strategies to improve the traceability of gear removed from entangled whales. However, there must be a universal marking system and agreements with Canada to identify any and all gear that large whales might encounter. Moreover, you will need international and inter-jurisdictional agreements to ensure that gear outside the geographic scope of the regulation is marked. You must try to ensure that such gear is not purposefully or accidentally marked in ways that one could mistakenly conclude the area in which the entanglement originated. Finally, there should be no exempted area in any waters that the four whale species may be expected to occur, however rare sightings may be.

### **Strategies Moving Forward**

**DMF intends to continue to reduce buoy line risk through existing state rules and policies. DMF is in position to document these trends in contrast to all of our partners on the TRT.** For the past three decades, DMF has enacted many effort control programs in our fixed gear fisheries to reduce effort in fixed gear fisheries for conservation and gear conflict reasons. Now we are faced with new challenges and reasons to control fixed gear fishing: entanglement risk.

DMF has maintained a constant policy of controlling fishing effort through limited entry permit programs and high standards for transferring permits. Since 2009 DMF has endeavored to collect buoy line count data anticipating both the attrition in the fisheries and the need to reduce entanglement risk.

Long-term reductions in traps and fishing effort will benefit our commercial fixed gear fisheries through improvements in efficiency (higher catch rates per trap). It is well established that the U.S. Gulf of Maine lobster fishery suffers from excessive traps and participation levels. DMF's longstanding rules and policies on limited entry and permit transfers has resulted in substantial reduction in permits and a concomitant reduction in traps fished in the Gulf of Maine. More

controls are needed especially in the federal lobster fishery and in the other Gulf of Maine states of New Hampshire and Maine. These changes are unlikely to come from initiatives by the TRP. But with the proper pressure they can be addressed by the NMFS fishery management staff working with ASMFC Lobster Conservation Management Teams (LCMTs) and their respective states represented on the teams.

### Recommendations

NMFS and the TRT should:

1. Work through the established institutions (LCMTs, ASMFC, partner states) and use their inherent knowledge and authority to develop strategies for controlling the number of buoy lines (i.e., policies to reduce effort and remove latent effort), thus reducing the risk of entanglement.
2. Abandon the strategy to prevent lobstermen from using two end lines on trawls.
3. Abandon the strategy of prohibiting the setting of single traps.
4. Evaluate potential to de-list humpbacks from the list of ESA endangered species.
5. Exclude humpback whale distribution data from consideration in the co-occurrence model, and focus primarily on right whales in future take reduction strategies.
6. Work with all jurisdictions to implement mandatory landings and effort reporting, including number of buoy lines, so that a baseline of effort data can be established and the co-occurrence model can be populated with accurate data.
7. Characterize the resolution and statistical robustness of the aerial survey data used in the co-occurrence model.

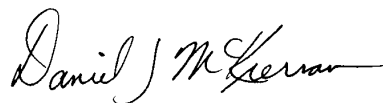
In summary, it is the Commonwealth's position that future buoy line risk reduction must be legitimate, long-standing, and documentable. Reduction of buoy line risk could be accomplished through fishing effort reductions by the institutions charged with managing the fisheries, not the TRT.

Thank you for considering these comments and your long-standing support and cooperation in the conservation of large whales in the Commonwealth.

Sincerely,



Paul J. Diodati, Director



Daniel J. McKiernan, Deputy Director

cc: Massachusetts Marine Fisheries Advisory Commission