MARINE FISHERIES ADVISORY COMMISSION
BUSINESS MEETING AGENDA
9:00 AM
January 28, 2021

Held Virtually Via Zoom
Webinar Link: https://bit.ly/3qExViw
Dial In: 1-929-436-2866
Webinar ID: 816 4496 4842
Webinar Passcode: 633507

1. Introductions and Announcements (9:00 – 9:10)
    a. Review and Approval of the January 28, 2021 Business Meeting Agenda
    b. Review and Approval of the December 10, 2020 Draft Business Meeting Minutes
2. Comments (9:10 – 9:30)
    a. Chairman
    b. Commissioner
    c. Director
    d. Law Enforcement
3. Presentation on Risk Reduction Tool (9:30 – 10:00)
4. Recommendation on New Protected Species Regulations (10:00 – 11:00)
5. Discussion Items (11:00 – 12:15)
    a. Commercial Striped Bass management
        i. Proposal to Adjust Commercial Striped Bass Season and Open Fishing Days
        ii. Sub-Committee Meeting Summary
    b. Recent and Upcoming ASMFC, MAFMC, and NEFMC Meetings
    c. Update on Port Profile Project
    d. Shellfish Program Updates
6. Other Business (12:15 – 12:30)
    a. Commission Member Comments
    b. Public Comment
7. Adjourn (12:30)

Future Meeting Dates

9AM
February 18, 2021
Virtual via Zoom

9AM
March 18, 2021
Virtual via Zoom

9AM
April 15, 2021
Virtual via Zoom

9AM
May 13, 2021
Location TBD

9AM
June 17, 2021
Location TBD

All times provided are approximate and the meeting agenda is subject to change. The MFAC may amend the agenda at the start of the business meeting.

MARINE FISHERIES ADVISORY COMMISSION
December 10, 2020
Held Virtually via Zoom

In attendance:
Marine Fisheries Advisory Commission: Raymond Kane, Chairman; Michael Pierdinock, Vice-Chairman; Bill Doyle, Clerk; Arthur "Sooky" Sawyer; Kalil Boghdan; Bill Amaru; Lou Williams; Tim Brady; and Shelley Edmundson.

Division of Marine Fisheries: Daniel McKiernan, Director; Kevin Creighton, CFO; Michael Armstrong, Assistant Director; Story Reed; Jared Silva; Nichola Meserve; Kathryn Ford; Julia Kaplan; Bob Glenn; Anna Webb; Kelly Whitmore; and Tracy Pugh.

Department of Fish and Game: Ron Amidon, Commissioner and Mary Lee King, Deputy Commissioner.

Massachusetts Environmental Police: Lt. Col. Moran and Lt. Matt Bass.

Members of the Public: Patrick Paquette, Drew Kolek, Tom Smith, Jessica Skammels, Jack Skammels, Emerson Hasbrouck, Philip Coates, and Rich Wood.

INTRODUCTIONS AND ANNOUNCEMENTS

Chairman Ray Kane called the December 10, 2020 Marine Fisheries Advisory Commission (MFAC) business meeting to order.

REVIEW AND APPROVAL OF DECEMBER 10, 2020 BUSINESS MEETING AGENDA

There were no proposed changes to the December 10, 2020 MFAC business meeting agenda.

Chairman Kane asked for a motion to approve the draft agenda. Bill Doyle made a motion to approve. The motion was seconded by Mike Pierdinock. The motion was approved by unanimous consent.

Note that prior to the meeting, Bill Amaru alerted DMF that he intended to raise issues related to time-of-year restrictions on dredging projects under "Other Business". To respond to Amaru's concerns, DMF made relevant staff available for this discussion. However, due to scheduling conflicts, Chairman Kane made an in-meeting determination to allow Bill Amaru to raise his questions with DMF staff prior to the presentation on dissolved oxygen monitoring, rather than under Other Business.

REVIEW AND APPROVAL OF OCTOBER 29, 2020 DRAFT BUSINESS MEETING MINUTES

There were no proposed amendments to the draft October 29, 2020 business meeting minutes. No comments were made.

Ray Kane asked for a motion to approve the draft October 29, 2020 business meeting minutes as provided. Kalil Boghdan made motion to approve; the motion was seconded by Tim Brady. The motion passed by unanimous consent.

CHAIRMAN'S COMMENTS

Chairman Kane thanked commission members for their attendance. He wished everyone a happy holiday season and turned it over to Commissioner Amidon.

COMMISSIONER'S COMMENTS

Commissioner Amidon discussed the Deer Island fishing pier project. He hoped DMF and DFG would be able to host a ribbon cutting ceremony in the spring. He then moved on to discuss ongoing diadromous fish restoration projects.

The Commissioner announced that DMF's CARES Act team received DFG's Pride and Performance award and was also nominated for the Governor's Manuel Carballo Award for excellence in public service. He congratulated Dan McKiernan, Kevin Creighton, and the entire CARES Act Team, noting that Massachusetts was the first state in the nation to issue the CARES grant money to affected industry members.

DEPUTY COMMISSIONER'S COMMENTS

Deputy Commissioner Mary Lee King announced she will be retiring at the start of 2021. DMF staff and commission members congratulated Mary Lee, thanked her for the years of public service, and wished her well in her retirement.

DIRECTOR'S COMMENTS

Director McKiernan thanked Ron for his kind words regarding the CARES Act team. Dan was pleased with the outcome of the CARES Act relief program and expressed the important role data played in completing the program. Accordingly, he recognized and thanked Anna Webb and Erich Druskat of DMF's Statistics Project for their work in auditing data and developing applications.

McKiernan then moved on to discuss the Massachusetts Shellfish Initiative (MSI). With the Scoping and Assessment Committee reports complete, the Task Force met on December 4 to discuss the development of a strategic plan. The Task Force established

a working group to draft this document. The sub-committee meetings would be open to the public and the working ground had scheduled their first meeting for December 14.

The Director briefly discussed a recent meeting with the Massachusetts Conch Association (MCA). The MCA is a newly formed industry group that consists of about 30-40 members. These members include conch pot fishermen and dealers and represent certain conch pot fishery interests. DMF met with members of the MCA to discuss the gauge increases, ongoing research, and other areas of concern. The MCA had commissioned their own size-at-maturity study by Dr. James Sulikowski at Arizona State University. They expected this study would be completed in the coming calendar year. In response, they requested DMF paused the whelk gauge increase schedule. The next scheduled increase is for 2021 and will raise the gauge width from 3" to 3 1/8". They argued this would have a substantial negative economic impact on industry and management would be better served by the additional science provided by their size-at-maturity study. DMF did not support the request. DMF conducted two size-at-maturity studies over the past ten years that affirmed the need for these pending gauge increases. However, DMF would review the MCA's study and consider it in future management actions.

Dan then moved on to discuss the Deer Island fishing pier project. Dan was looking forward to a potential spring ribbon cutting event and noted a promotional video that will be featured on social media in 2021.

The Director stated the MFAC's sub-committee on commercial striped bass management was scheduled to meet on December 21 to discuss management changes for 2021 and begin to develop a long-term strategy for management the fishery.

The Director also noted that DMF has extended the validity of its 2020 commercial and dealer permits through January 31. This action was necessary because pandemic-related restrictions affected office capacity and turnaround time on processing permit applications.

LAW ENFORCEMENT COMMENTS

Lt. Matt Bass handled the comments for MEP. He began by discussing personnel. Three new officers entered the field; two officers had begun their field training; and MEP was conducting interviews to fill seven additional positions. Lt. Col. Moran thanked the MFAC for their support in increasing the MEP ranks.

Lt. Bass then notified the MFAC and DMF of an emerging incident involving serious lobster violations on the North Shore. Lt. Col. Moran stated the incident involved several different vessels and a wholesale dealer, and produced over 100 violations. The investigation was ongoing.

Lt. Bass concluded his comments by expressing his support for the MFAC's Law Enforcement Sub-Committee and noted that the recent November meeting was very valuable.

Ray Kane commended the MEP for all their work. He then asked about the schedule for the new hires to attend the policy academy. Lt. Col. Moran stated they are finishing interviews and they hope recruits will start the academy in March.
Bill Amaru stated that the recent storm surge had washed bay scallops up onto Cape Cod beaches. Locals were informed that they were not allowed to remove the scallops from the beach, which ran counter to past practices. Bill asked if MEP has any information regarding this decision. Lt. Bass stated that he would look into the matter and get back to Amaru on the issue.

ACTION ITEMS

Review Open Meeting Law Complaint and Approval of Written Response
Jared Silva discussed an Open Meeting Law (OML) complaint received on November 3, 2020. The MFAC appealed to the Attorney General's Office (AGO) to extend the complaint response deadline to December 14 to allow the MFAC to review complaint at this business meeting.

Jared reviewed the complaint and the OML requirements applicable to the MFAC and determined that the OML compliant was erroneous and that the MFAC frequently goes beyond OML requirements to ensure transparency. He provided the MFAC with a draft response letter and recommended it be edited slightly to cite three applicable AGO OML compliant decisions that supported the MFAC's determination. Jared invited discussion from commission members.

Mike Pierdinock stated the format of the draft letter should be fixed before submission, but he otherwise approved of the draft letter.

No further comments were made. The Chairman called for a motion to approve the draft response letter with the amendments recommended by Jared Silva. Bill Amaru made a motion to approve the draft letter with amended recommendations from Jared. Sooky Sawyer seconded the motion. Motion was approved by unanimous consent.

Period I Summer Flounder Trip Limit Increase
Nichola Meserve presented information regarding the quota increase for summer flounder. The Director expressed his interest in having the commercial fishery utilize the available quota. He then recommended the MFAC vote in favor of increasing the summer flounder commercial trip limit from 1,000 pounds to 2,000 pounds for the extent of the 2021 Period I fishery (January 1–April 22). This 2,000 pound limit was recommended in response to anticipated increase in Massachusetts' annual

commercial quota for 2021. The intention was to enable the offshore fleet to achieve its 30% target allocation of the annual quota.

The Director reminded the MFAC that DMF had advocated for the MAFMC and ASMFC to grapple with the re-allocation of state-by-state commercial quota allocations to address the north and eastward shift in the distribution of certain stocks in response to changing oceanographic conditions. This pending quota increase is historically significant because it is in part occurring in response to this request.
Bill Amaru concurred with the Director regarding the quota. He also noted that this proposal was very important to the commercial fishery and was pleased to support it.

Mike Pierdinock wanted clarification on whether the MFAC are approving an increase from 1,000 to 2,000 pounds per trip limit and where the fishing activity during Period I primarily occurs. Nichola confirmed that the trip limit will increase from 1,000 pounds to 2,000 pounds. McKiernan and Silva added that the effort is concentrated in those federal waters south of the islands and east of Montauk. Bill Amaru added that this proposal will allow local commercial fishermen to land fish that was previously either discarded or transported and landed in more southern states with higher limits and larger quotas.

No further comments were made. The Chairman called for a motion to approve the Period I Summer Flounder Trip Limit Increase. Bill Amaru made a motion to approve the motion. Bill Doyle seconded the motion. Motion was approved by unanimous consent.

<u>Winter I Scup Limits</u>
The Director recommend the MFAC vote in favor of adopting a 50,000-pound commercial scup trip limit for the 2021 Winter I period (January 1 – April 30). This recommendation was consistent with the anticipated federal possession limit for this quota management period.

No comments were made. The Chairman called for a motion to approve the Winter I Scup Proposal. Sooky Sawyer made a motion to approve the proposal. Shelley Edmundson seconded the motion. Motion was approved by unanimous consent.

The Director noted the winter period scup limits are regularly established twice a year for January 1 and October 1. It is routine for DMF to complement the federal limits to allow vessels fishing offshore during the winter months to land their lawful scup catch in MA. However, the regulations currently require DMF to seek public comment and obtain MFAC approval before implementing these complementary measures. He felt this process was onerous, and ultimately unnecessary. Accordingly, DMF was investigating alternative approaches to setting the winter period scup limits.

FUTURE RULE MAKING

Petition to Lift Bluefish Strikenet Closure in Eastern Cape Cod Bay
Director McKiernan reviewed a recent petition from the state's sole bluefish strikenetter seeking the agency reconsider the year-long closure to bluefish strikenets in southeastern Cape Cod Bay. The Director provided some historic background on the closure. It was implemented in the early 1980s to ameliorate a user-group conflict by separating the commercial gillnet fishery from the recreational hook and line fishery. Dan noted that the management of the bluefish fishery had changed dramatically over the past 40 years. The bluefish fishery was now subject to a federal and interstate management plan, from which Massachusetts is provided an annual commercial quota. Additionally, effort in the strikenet fishery has waned and there is now only one permitted fisherman. Given these factors, Dan it was appropriate to bring the petition to public hearing and consider potential changes to the strikenet closure.

Kalil Boghdan liked the idea of re-examining both the closure boundary and its seasonal timing and determining whether a compromise could be reached that would satisfy both user groups.

Mike Pierdinock asked about the transferability of the remaining bluefish strikenet permit. Dan stated that this was a matter of some historic uncertainty. The current permit holder recalled that DMF had informed him that the permit was not transferable. However, DMF does not have any records or legal documents documenting that it is non-transferable. Given this record, transferability was likely at the discretion of the Director and Dan was interested in pursuing this discussion with the MFAC.

Bill Amaru strongly supported the petitioner's request. Bill argued that providing access to this area would increase quota utilization, provide a high-quality product for market, and have a nominal impact on recreational fishing conditions. He noted that the petitioner has a strong reputation on the waterfront and is known for working cooperatively with competing users. Amaru and McKiernan noted that dealers tend to prefer strikenet caught product to hook and line caught product, because it is often handled better resulting in a higher quality meat.

Mike P. added that many recreational anglers have reached out to him expressing concern over this proposal. The for-hire fleet relies on this area through the summertime season and well past Labor Day. Given the current status of the striped bass resource inshore, and the new striped bass slot limit, the for-hire fleet in Cape Cod Bay is again dependent on bluefish for inshore day-trips. Vessels may often begin the day targeting striped bass, but if fishing is slow they will then take patrons to this area towards the end of the trip to make sure they get into bluefish. Mike P. estimated that upwards of 30 for-hire vessels rely on this area through November. Tim Brady concurred with Pierdinock. He added that this area is consistently relied upon by recreational fishermen to produce bluefish catch. For these reasons, Pierdinock and Brady did not support the petition.

Dan asked Mike Armstrong to discuss his expectations for the recreational striped bass fishery over the next few years. Mike A. anticipated there will be more slot limit sized fish available in 2021 and 2022, as some stronger year classes age into the fishery. These slot limit sized fish are not typically as affected by warmer water temperatures as larger fish and should be available throughout Cape Cod Bay in the summer and early fall.

Kalil Boghdan asked about how the procedure for determining whether or not to move a petition forward. Jared Silva explained that the decision to bring a petition to public hearing was at the discretion of the Director, then following a public hearing the MFAC could vote up or vote down the Director's recommendation.

Director McKiernan thanked the MFAC for their comments. He understood the objections raised by certain commission members but did not think that it was reason to prevent further discussion of the petition at public hearing. He felt public comment would allow for him to make a better informed final decision regarding the petition. Jared Silva anticipated a public hearing would occur in March or April with a final recommendation coming back to the MFAC in April or May.

Kalil Boghdan, Lou Williams, and Bill Doyle supported this approach.

Lou Williams opined that bluefish availability is highly cyclical. He provided an anecdote about the historic availability of bluefish along the North Shore.

Lou then asked for the dimensions of the strikenet gear being used. Bill Amaru stated that the maximum net length is 1,500 feet; Jared Silva concurred.

Update on Protected Species Rule Making Timeline

Director McKiernan provided a brief recap of the two recent public hearings regarding protected species and fixed gear closures and gear modifications. Dan was impressed with the amount of interest in these proposed measures and stated that each hearing had well over 100 attendees and DMF had received thousands of pages of written comment. He went on to commend Jared Silva for his administration of the hearings.

Dan expected that DMF would provide the MFAC with this final recommendation at their January business meeting and whatever regulations were approved by the MFAC would be implemented for late-February or early-March.

McKiernan anticipated he would have some difficult decisions to make regarding his final recommendation. Bob Glenn added that this is the most challenging situation DMF has had to navigate in recent history. McKiernan and Glenn then highlighted how adopting these final regulations fit within the context of the ongoing litigation and moving DMF's ITP application forward. DMF also anticipated NOAA would be publicizing new

draft Atlantic Large Whale Take Reduction Plan regulations this winter that would interact with the state's proposal.

While not on the public hearing docket, DMF did receive a substantial amount of comments regarding ropeless fishing technology. This was a very divisive issue. Certain conservation interests passionately argued that this transition was necessary to prevent the right whale from becoming extinct. However, there were also concerns that transitioning to ropeless fishing may cost the Massachusetts lobster fishery more than $100 million in up front capital investment, increase gear conflicts if the technology does not have sufficient spatial resolution, and negatively impact fishermen safety. Ultimately, these factors could produce a sharp contraction in the lobster fleet and necessitate ocean zoning, having a ripple affect across working waterfronts throughout the state. To address this issue, DMF applied for and received a grant to investigate the obstacles facing ropeless fishing and a contractor has been hired to conduct this in-depth analysis and produce a white paper on the subject.

The Director then highlighted a presentation made by NOAA at last weeks' NEFMC meeting. This presentation addressed both the current status of the right whale and ropeless fishing technology. Dan asked staff to share the presentation with the MFAC.

Ray Kane asked how many MFAC members attended the hearings. Jared stated there were four or five members in attendance at each hearing. Jared also noted that the public hearings were available to watch on DMF's YouTube channel.

Kalil Boghdan commended DMF for how they conducted themselves listening to the public's questions and comments. He noted a conundrum between the livelihood of fishermen and right whale conservation.

Mike Pierdinock asked about the economic impact to the fishermen and if there will be any relief provided to them as a result of these measures. The Director stated DMF does not appropriate funds and he cannot forecast whether the Massachusetts legislature or the US Congress would provide financial relief. In the past, fishermen were provided vouchers when sinking line was required. Bob Glenn also noted that DMF would be providing fishermen with assistance to switch over to the weaker rope.

Sooky Sawyer expressed disappointment in a lack of attendance for North Shore lobstermen. He was hopeful they would submit written comments. He then expressed frustration that Massachusetts is the sole state dealing with proposed alterations to the lobster fishery.

Ray Kane asked to be updated on this matter at upcoming business meetings. Jared stated he will continue to update the website with updated public comments so that commission members can get ahead with reading.

DISCUSSION ITEMS

Review of Law Enforcement Sub-Committee Meeting

Jared Silva gave a brief presentation with key takeaways from the Law Enforcement Sub-Committee Meeting held on November 19, 2020. Topics discussed included: quota managed species, the closure of the Cape Cod Canal to commercial striped bass fishing, gear marking issues, lobster fishery issues, incidental catch of striped bass on non-circle hooks, and enhanced enforcement at dealer level for whelk. Jared welcomed any questions from the commission.

Sooky Sawyer stated that one of the companies that makes styrofoam buoys went out of business, and DMF should expect to see increased usage of go-deep buoys.

Updates from Joint ASMFC-MAFMC Meeting

Nichola Meserve provided a preview of the joint ASMFC-MAFMC meeting scheduled for December 15-16 on fluke, scup, sea bass, and bluefish. The annual recreational management measures for all four species would be set during this meeting. Due in large part to the pandemic's impact on the 2020 MRIP survey and the resulting lack of harvest estimates, Council staff have recommended status quo measures for all four species. If status quo measures are adopted, DMF would work to have its recreational black sea bass fishery start on a Saturday through conservation equivalency, as it has in past years. Additionally, the joint meeting would address the commercial black sea bass reallocation amendment. DMF supported options that would redistribute the coastwide quota to states based on the changing geographic distribution of the resource.

Mike Pierdinock thanked Nichola for trying to address the May 18 start date for the recreational black sea bass fishery. Additionally, he asked if the extended for-hire bag limit for sea bass in October was being considered for next year. Nichola stated that the change for the for-hire fleet this year was only for this year, and the status quo recommendation would be from last years' initial measures.

Mike P. then asked if catch and harvest data from the for-hire extend black sea bass season were available. Nichola stated that MA may be able to get additional information from eVTRs that are submitted, but they have not been reviewed yet.

2021 MFAC Business Meeting Schedule

Jared Silva discussed proposed dates for next year's meetings from January to June. The proposed dates were as follows: February 18, March 18, April 15 or April 22, May 13 or May 20 and June 17. Jared asked MFAC members to let him know if they have any conflicts on those dates.

PRESENTATION ON DISSOLVED OXYGEN MONITORING IN CAPE COD BAY

The Director introduced Dr. Tracy Pugh who gave a presentation on the dissolved oxygen monitoring project occurring in Cape Cod Bay.

Last September (2019), lobster fishers in the southern portion of Cape Cod Bay hauled up hundreds of pounds of dead lobsters, crabs, and finfish in their traps. DMF quickly learned that these deaths were caused by a severe hypoxia event; the bottom waters in the region did not have enough oxygen to sustain the life of those animals that could not migrate out of the area became asphyxiated. DMF, in cooperation with several area A fishermen, discussed a monitoring program to help detect the formation of another hypoxic event. This would then allow fishermen to move their gear away from the affected area.

This spring the Lobster Foundation of Massachusetts was awarded funding from the MA Climate Change Resilience in Fisheries and Aquaculture Grant Program to support a monitoring program. There are currently five vessels participating in the Study Fleet, covering the southwestern portion of CCBAY (Manomet to Barnstable) and the northeastern corner (Provincetown area).

Data collection instruments were attached to lobster traps and record dissolved oxygen (DO) and temperature every 15 minutes. When the traps were hauled, the instrument would communicate the data to an onboard data storage system via Bluetooth. This data is then downloaded to a land-based server via a cellphone signal. The captain never has to touch the logger; everything is completely automated and happens so quickly that the normal pace of hauling, emptying, re-baiting and setting back the traps is unaffected. The logger stays attached to the trap and goes back in the water when the gear is set back.

As a result of these monitoring efforts, researchers have learned that a “blob” of hypoxic water moves around in the southern portion of Cape Cod Bay, driven by oceanographic conditions. Strong northerly winds will push surface waters towards the shore, causing downwelling along the southern shoreline, which pushes the blob offshore into deeper waters. Conversely, southerly winds blow surface waters away from shore, allowing for upwelling along the shoreline, which causes the blob to move closer to shore.

DMF also partnered with researchers from the Center for Coastal Studies (CCS) and Woods Hole Oceanographic Institution (WHOI) for their expertise in water quality and oceanographic conditions. The collaboration between MA DMF, the Cape Cod Bay Study Fleet, and researchers from CCS and WHOI has drastically improved the ability to detect the formation of hypoxic conditions, and to track the movement of the blob in southern Cape Cod Bay.

DMF plans to continue this work in 2021. In the meantime, the partners from WHOI and CCS will be working to better understand what drives the development of the blob, to

increase our ability to detect and predict the potential onset of hypoxia in Cape Cod Bay. DMF will continue to develop ways to use the monitoring data to alert the commercial lobster fleet and other stakeholders of changing conditions in the Bay.

Ray Kane asked the commission if they had any questions or comments.

Mike P. asked if sewage runoff could be involved the formation of the blob. Tracy stated that being downstream of any heavily populated area allows for the creation of a catch basin, and as a result, rain events could contribute to the hypoxia. Tracy added that the collaborators are taking an in-depth look at other causes of the blob.

Kalil asked if there are other studies similar to this one occurring along the east coast or where striped bass breed. Tracy did not know of any other studies being done of this scale. She noted there are some boats on the west coast doing similar studies using Dungeness crab pots.

Sooky Sawyer commended Tracy Pugh for her work. He hopes the blob will not escalate throughout the Cape Cod Bay.

Lou Williams was concerned that the change in the chemical used in the treatment of effluent at Deer Island was affecting environmental conditions around the MWRA outfall pipe in Massachusetts Bay. Given the oceanographic conditions of Cape Cod Bay he was interested that this could be another source impacting water quality in the area.

Tim Brady recalled a cyanobacteria bloom that lasted into September in Plymouth. He added the blooms that used to occur in the summer are going later into the season.

OTHER BUSINESS

Commission member Bill Amaru raised concerns regarding time-of-year restrictions on harbor dredging. He noted that the fish population surveys used to develop these restrictions date back to the 1970s and are likely out-of-date. He was looking for DMF to conduct new surveys or update the existing surveys, so the time-of-year restrictions could better fit current ecological parameters. Bill stated he would like to see the Commission's support initiatives to modernize those fish population surveys used to develop the time-of-year restrictions.

The Director stated that DMF does not have the current staffing or funding necessary to take on this survey work. However, the habitat program was aware of the issues presented by these time-of-year restrictions and was reviewing other potential solutions.

Commission Member Comments
Bill Amaru expressed excitement that the trip limits for summer flounder were liberalized. Dr. Shelley Edmundson thanked everyone for their time and hard work. Mike

Pierdinock provided a brief ICCAT update. Ray Kane asked for DMF to provide an update on the port profile project at the January meeting.

PUBLIC COMMENTS

There were no public comments.

ADJOURNMENT

Chairman Ray Kane requested a motion to adjourn the December MFAC business meeting. **Bill Doyle made a motion to adjourn the meeting. The motion was seconded by Shelley Edmundson. The motion was approved by unanimous consent.**

MEETING DOCUMENTS

- December 2020 MFAC Business Meeting Agenda
- October 2020 Draft MFAC Business Meeting Minutes
- Draft OML Complaint Response
- OML Complaint Response Slides
- Summer Flounder Period 1 Trip Limit Recommendation
- Fluke Quota Change Slides
- 2021 Winter I Scup Recommendation
- Winter Scup Slide
- Review of Recent Petition to Rescind Bluefish Strikenet Closure
- Bluefish Strikenet Petition Slide
- Update on Proposed Protected Species Regulations Affecting Fixed Gear and Upcoming Public Hearing Schedule
- LESC Meeting Summary
- LESC Slides
- MCA Meeting Summary
- Updates from MEFMC for Oct to Dec 2020
- Permit Extension Exhibit
- Dissolved Oxygen Presentation

UPCOMING MEETINGS

9AM January 28, 2021 Via Zoom	9AM February 18, 2021 Via Zoom	9AM March 18, 2021 Via Zoom
9AM April 15, 2021 Via Zoom	9AM May 13, 2021 Via Zoom	9AM June 17, 2021 Via Zoom

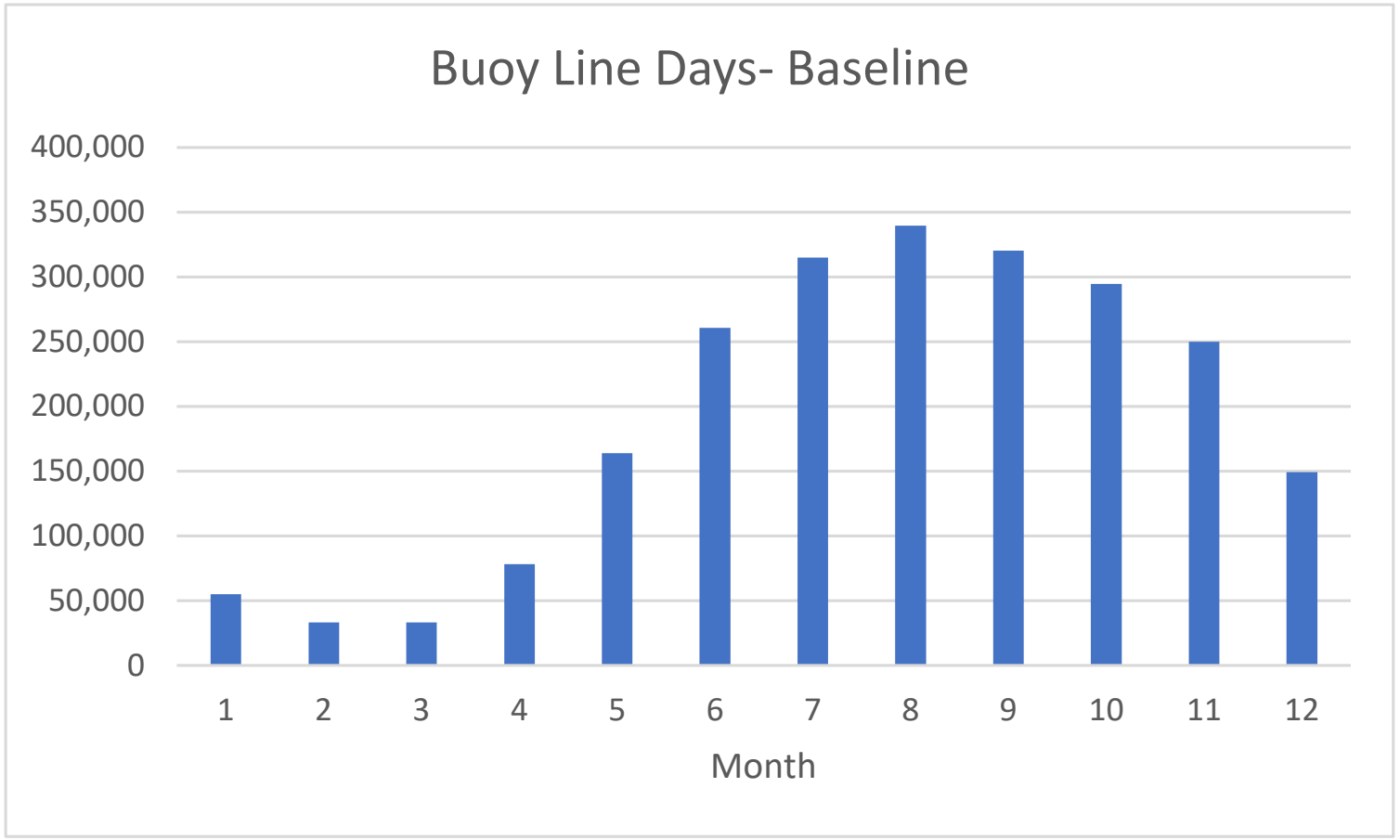
NMFS Decision Support Tool

- A Bayesian state-space model to evaluate entanglement risk to large whales

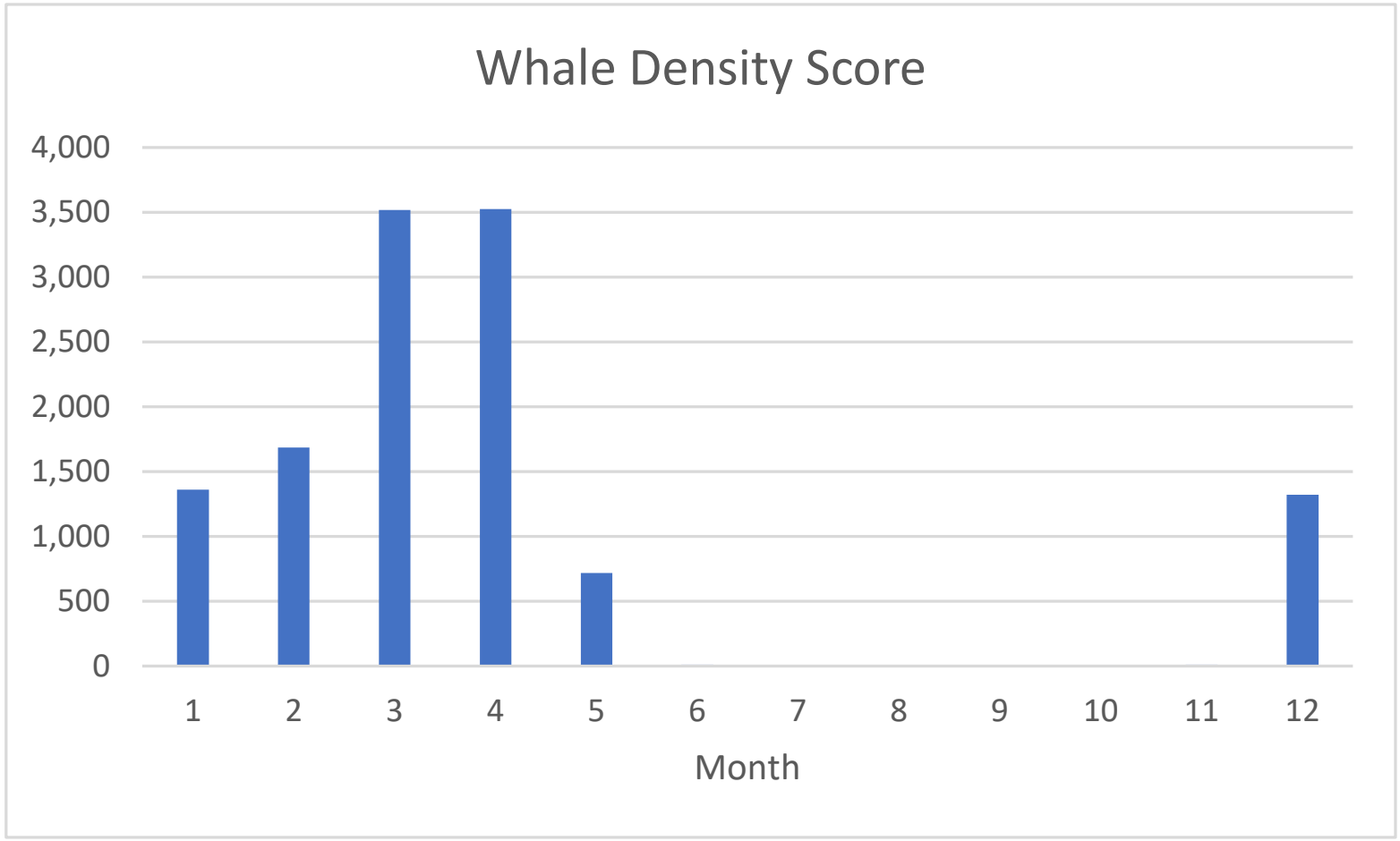
-A little bit about how the model works

- Incorporates whale density data
- Incorporates buoy line data
- Accounts for relative risk of gear type by weighting entanglement severity based on gear convention
  - Large diameter rope + number of traps per trawl = high risk score
  - Small diameter rope + lower number of traps per trawl = lower risk score
- Calculates relative risk to large whales based on co-occurrence of whales and gear
- Can be used to test management scenarios

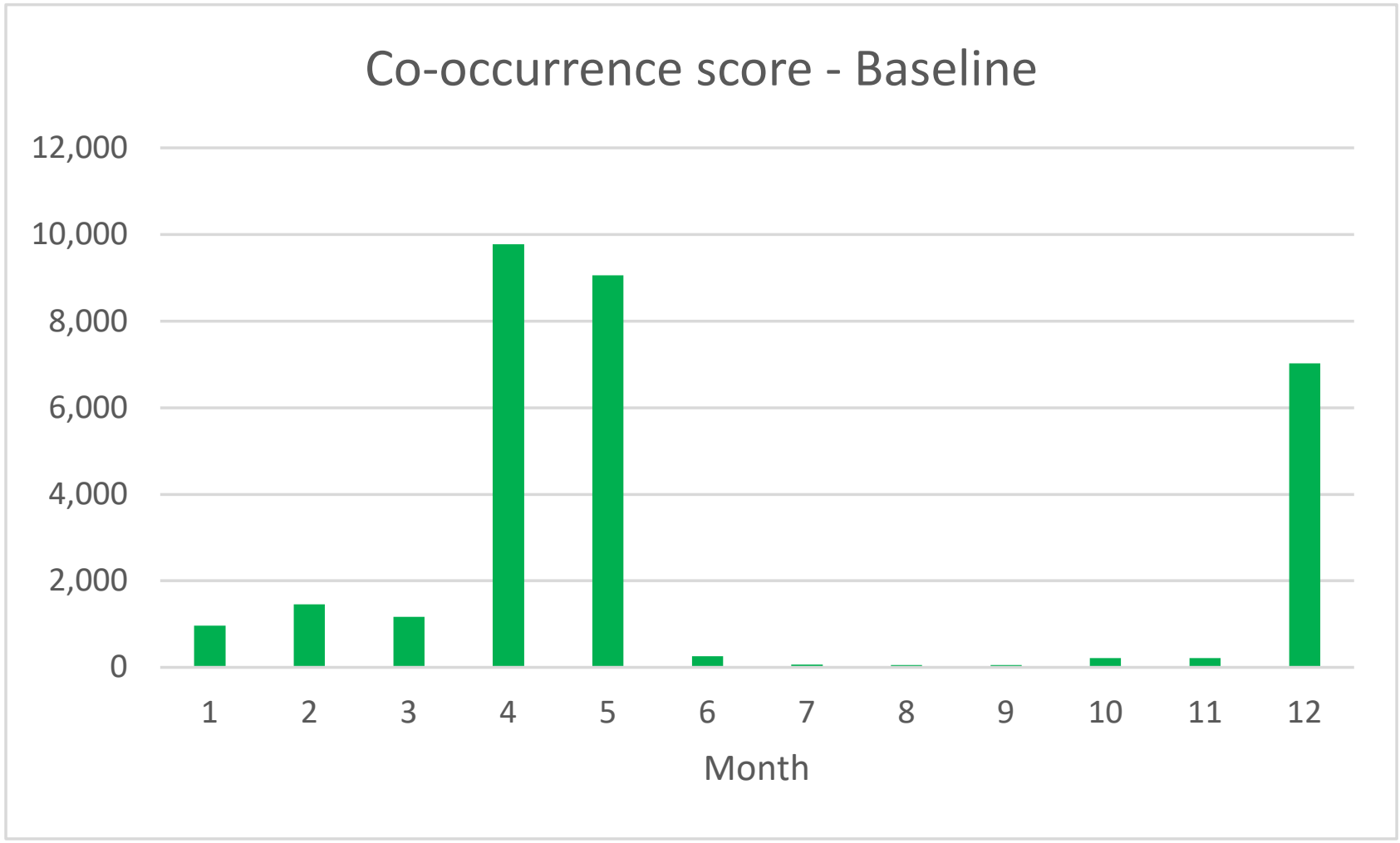
Buoy line days – our potential risk landscape



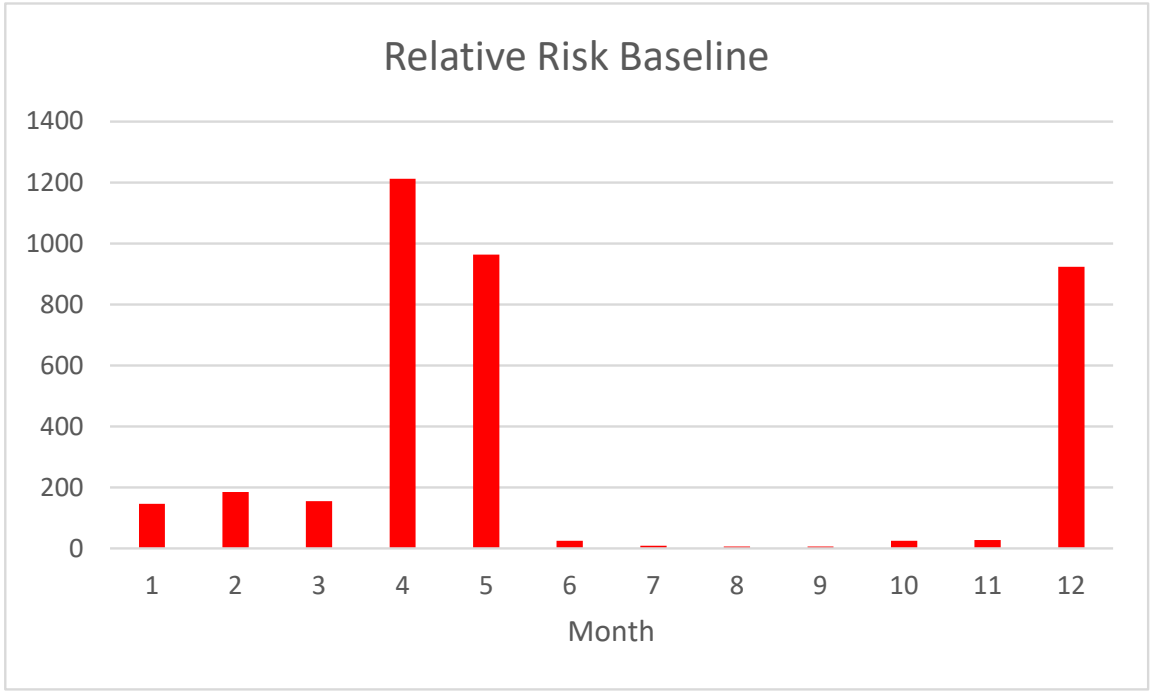
Whale Density

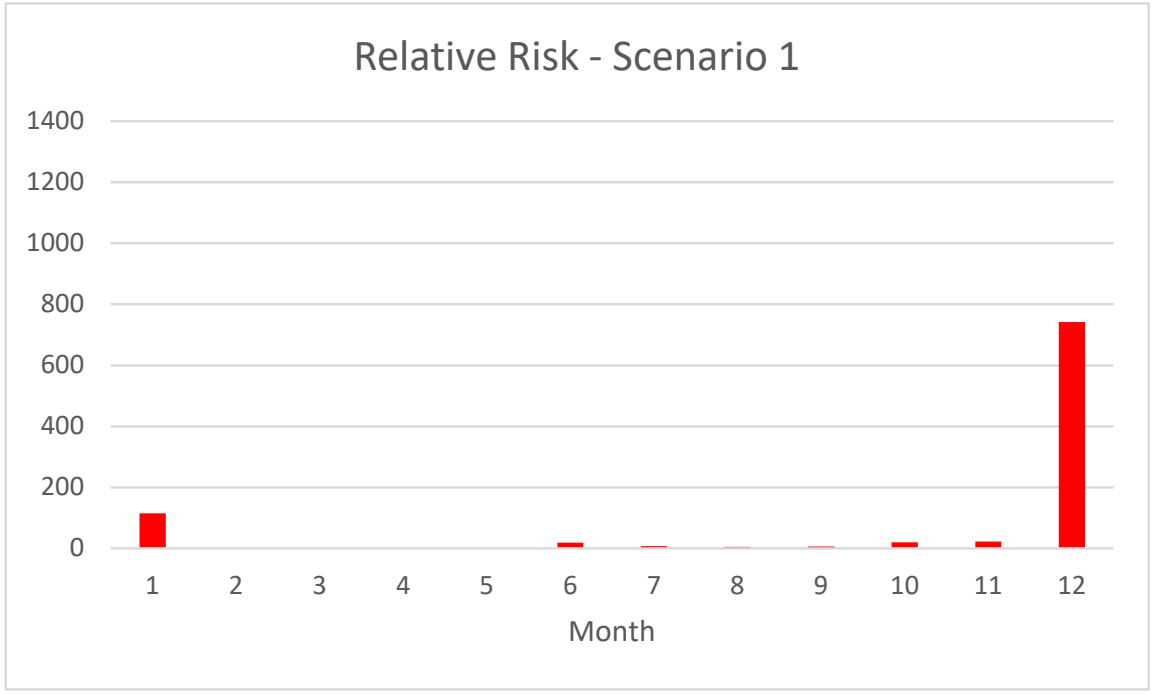


Co-Occurrence – our “realized” risk landscape

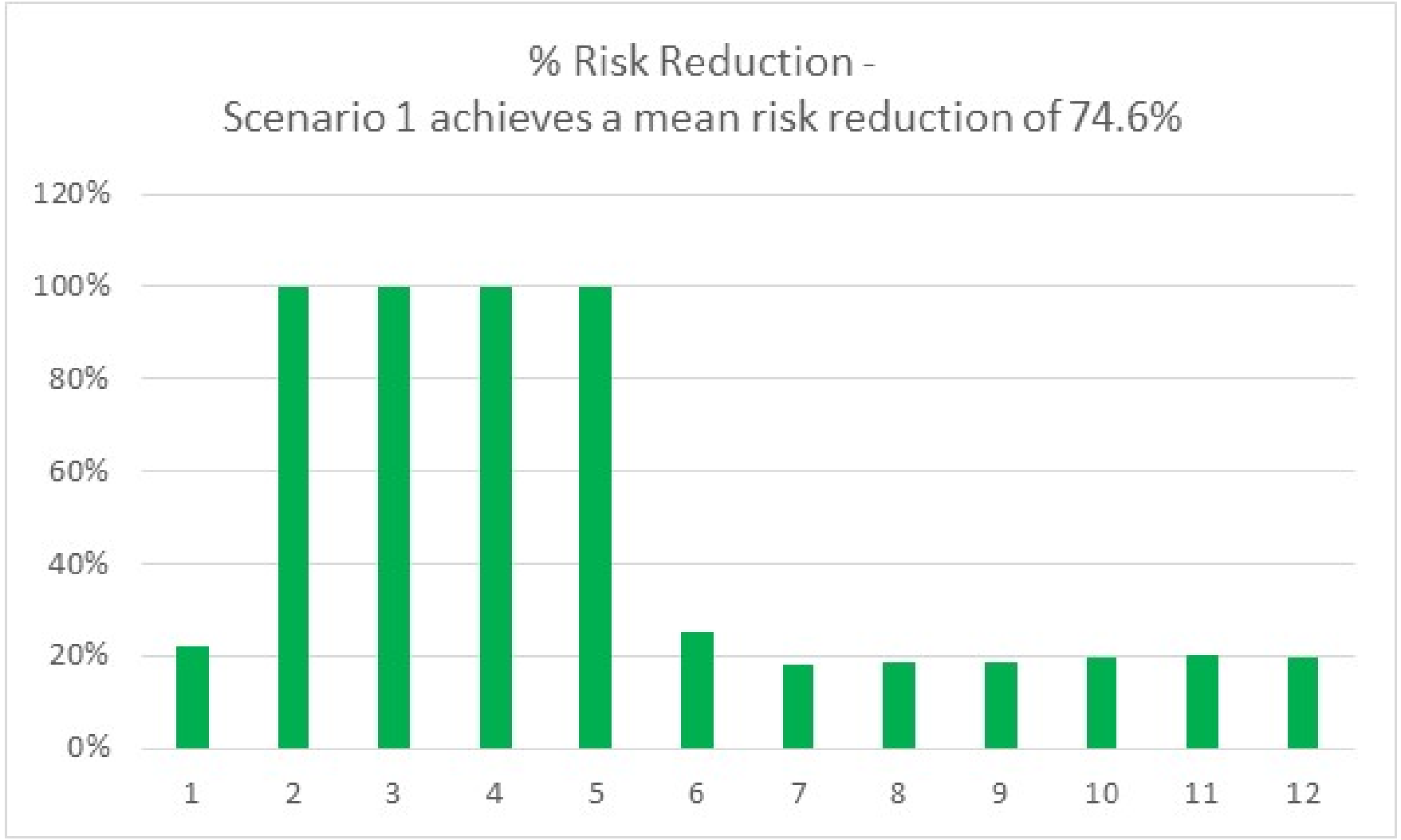


Relative Risk





% Risk Reduction by Month



4 Scenarios were run through the model

- 1.) Baseline Regulation Package – **74.6%**
  - a. Seasonal closure of Feb 1 to April 30th all state waters
  - b. 1,700 lb rope or contrivance as proposed in the ALWTRT plan submitted by MA
  - c. Ban on single traps on vessel > 29'. DMF stats program estimates this will result in a 7%
    - reduction in buoy lines
  - d. Dynamic extension of closure in all state waters (we are likely changing the language to be
    - a May 15th closure date with a dynamic opening instead)
- 2.) SNE Exemption – **73.2%**
  - a. Seasonal closure of Feb 1 to April 30th of MBRA and all state water extending north to the
    - NH border
  - b. 1,700 lb rope or contrivance as proposed in the ALWTRT plan submitted by MA
  - c. Ban on single traps on vessel > 29'. DMF stats program estimates this will result in a 7%
    - reduction in buoy lines
  - d. Dynamic extension of closure in all state water new closed area (we are likely changing the
    - language to be a May 15th closure date with a dynamic opening instead)
- 3.) ENGO Request – **77.7%**
  - a. Seasonal closure of Jan 1 to April 30th all state waters
  - b. 1,700 lb rope or contrivance as proposed in the ALWTRT plan submitted by MA
  - c. Ban on single traps on vessel > 29'. DMF stats program estimates this will result in a 7%
    - reduction in buoy lines
  - d. Dynamic extension of closure in all state waters (we are likely changing the language to be
    - a May 15th closure date with a dynamic opening instead)
- 4.) Mixed Scenario = **76.3%**
  - a. Seasonal closure of Jan 1 to April 30th of MBRA and all state water extending north to the
    - NH border
  - b. 1,700 lb rope or contrivance as proposed in the ALWTRT plan submitted by MA
  - c. Ban on single traps on vessel > 29'. DMF stats program estimates this will result in a 7%
    - reduction in buoy lines
  - d. Dynamic extension of closure in all state waters (we are likely changing the language to be
    - a May 15th closure date with a dynamic opening instead)

Feedback from NMFS

- Generally pleased with outcome of all 4 scenarios
  - Can’t tell us the exact % risk reduction necessary to achieve NID because they have not generated “MA lobster fishery” mortality estimates and PBR
  - But encouraged us that we were on the right path and that they have the ability to issue an ITP initially and then re-evaluate effectiveness of the MA conservation program as time goes on

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MEMORANDUM

TO: Marine Fisheries Advisory Commission (MFAC)

FROM: Daniel J. McKiernan, Director

DATE: January 22, 2021

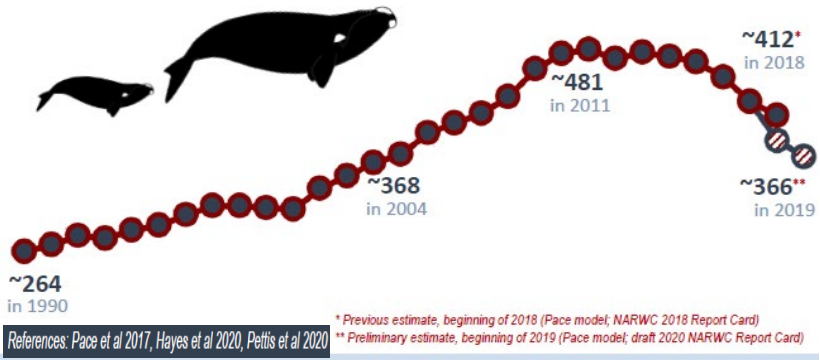
SUBJECT: **Final Recommendation on Protected Species Regulations**

Background

The North Atlantic right whale (right whale) is a critically endangered species that is listed under both the United States Endangered Species Act (ESA) and the Massachusetts Endangered Species Act (MESA). Cape Cod Bay serves as an important overwintering area for this migratory whale. During the late-winter to early-spring period, a large proportion of the known right whale population migrates through our waters to aggregate in Cape Cod Bay where the whales seasonally feed on high densities of zooplankton. In recent years, approximately 65% of the known population has been observed in Massachusetts waters (Pettis et al. 2018).

Figure 1 is a graphic that NOAA Fisheries provided in a presentation to the New England Fishery Management Council in December 2020. It shows that from 1990 through 2011, the right whale population recovered from 264 individuals to 481 individuals. Much of this population growth occurred over the first decade of the 2000s. This may be in part attributable to the conservation management programs that Massachusetts and NOAA Fisheries implemented in the late-1990s that aggressively and continuously managed fixed gear fisheries and ship strikes—the two most substantial human-caused sources of right whale injury and mortality. With regards to fixed gear, this management approach focused on preventing right whales from becoming entangled in fixed gear; allowing the whales to more easily break free if entangled; and identifying the origin of the gear to provide for more surgical future management actions.

Fig. 1 - Right Whale Population Trends 1990 - 2020



Despite these extensive efforts, the population of right whales has substantially declined over the course of this past decade. The most recent population estimate from 2019 identified only 366 individuals remaining in the population; this is a preliminary estimate by the North Atlantic Right Whale Consortium (NARWC) that has not been peer reviewed. If accurate, this represents a population decline of about 24%

since 2011. This substantial decrease in population size is caused by a combination of fewer births due to reducing calving rates and an increase in deaths. The recent increase in deaths has been termed by NOAA Fisheries to be an "unusual mortality event." The unusual mortality event began in 2017, and since then there have been 32 known right whale mortalities and an additional 14 serious injuries that likely resulted in death.

Entanglements and ship strikes continue to be significant sources of serious injury and mortality throughout the species range, which extends from the southern United States through Canada. However, this recent population decline has also coincided with an oceanographic regime shift. The regime shift is impacting the seasonal distribution and abundance of *Calanus* copepods, the right whale's favorite prey item. This is causing changes in the distribution and migration patterns of right whales that can lead to increased physiological stress contributing to lower calving rates and inferior overall health. It is also prompting the whales to aggregate in new areas (e.g., Gulf of Saint Lawrence) where sufficient right whale conservation measures had not been implemented to reduce the risk of ship strikes and entanglements.

Regardless of the exact cause, this population reduction is striking and deserving of additional conservation. With this objective in mind, NOAA Fisheries' Atlantic Large Whale Take Reduction Team (ALWTRT) began developing new regulations to amend the Atlantic Large Whale Take Reduction Plan (ALWTRP) in 2019. The ALWTRP is a federal management plan established pursuant the Marine Mammal Protection Act (MMPA). Unlike other federal regulations, those developed under the MMPA for the ALWTRP affect commercial fishing effort in both state and federal waters. The most recent round of federal rule making has progressed recently with the Draft Environmental Impact Statement (DEIS) being released on December 31, 2020 (Federal Register Notice). NOAA Fisheries is currently holding public information sessions and will host public hearings in February 2021. Written comment will be accepted until March 1, 2021; I intend to submit comment on behalf of DMF. NOAA Fisheries has indicated they mean to file final rules by May 31, 2021.

In the interim, in April 2019, an Endangered Species Act citizen's suit was filed against the Commonwealth of Massachusetts in the US District Court in Boston. The complaint alleges that: (1) DMF licenses and regulates the deployment of vertical buoy lines in fixed gear fisheries; and (2) this activity violates the Endangered Species Act, as it may cause entanglements of endangered right whales and sea turtles. The plaintiff petitioned the court to, among other things: (1) issue a temporary restraining order that would halt the Division of Marine Fisheries from licensing the use of vertical buoy lines in the waters under the jurisdiction of the Commonwealth; and (2) require the state to apply for an Endangered Species Act Incidental Take Permit (ITP). In April 2020, the court ordered DMF to apply to NOAA Fisheries for an ITP. While the court did not issue any additional orders at that time, the plaintiff continues to seek additional orders from the court. A trail has been scheduled for June 2021. Depending on the outcome of that trial, the court may issue additional orders; additionally, the court has the authority to issue additional orders pending trial. Accordingly, my staff—with support from the Department of Fish and Game and the Executive Office of Energy and Environmental Affairs—are currently engaged with NOAA Fisheries in the lengthy and intensive ITP application process.

In an ITP application, a Habitat Conservation Plan (HCP) is developed to detail the steps the applicant is taking to minimize and mitigate impacts the permitted activity would have on an endangered species. To accomplish this, DMF must adopt new regulations that will be incorporated into our HCP and achieve the required minimization of impacts.

On November 13, 2020, DMF released draft protected species regulations affecting fixed gear fishing for public comment. These draft regulations included new fixed gear closures, trap gear modifications, permitting restrictions, and housekeeping measures to improve the organization of the regulations. The

regulations were designed to reduce the risk of endangered right whales becoming entangled in fixed fishing gear and to reduce the harmful impact of the gear on the whale if it were to interact with it. This proposal is effectively the foundation of the state's HCP for right whales, and therefore, an integral aspect of its ITP application.

It should be noted up front that this set of regulations addresses only right whale conservation. In future rule making related to this ITP application, DMF will also have to address takes of sea turtles in fixed gear fisheries. Many of the conservation measures proposed in this memo have been vetted through—and have benefited from—the ALWTRT's ongoing rule making process. This process has allowed these measures to be analyzed and reviewed from a risk reduction perspective using the NMFS Right Whale Decision Support Tool (decision support tool).[1] In absence of a federal take reduction team, sea turtle conservation has not had the same level of management focus on risk assessment and the development of targeted conservation measures. Consequently, DMF will publish draft rules for sea turtle conservation in the coming months.

Overview of Current Rule Making and Final Recommendation on Right Whales Regulations
From November 13 through December 18, 2020, DMF accepted written public comment on draft right whale conservation regulations (public hearing notice). Additionally, oral testimony was accepted at two virtual public hearings on December 8 and December 9, 2020. Recordings of these public hearings are archived on DMF's YouTube Channel and the presentation provided by DMF staff may be found on DMF's website. The public response to these proposals was unprecedented (written public comment). DMF received over 300 pages of unique public comments and more than 2,000 pages of public comment when including form letters. It would be an understatement to say that there is substantial interest in this action. The public comment DMF received was as candid as it was diverse. The comments ran the gamut from objecting to the measures due to impacts on industry, to supporting the measures, to arguing the measures did not go far enough to protect right whales.

After a careful review of the public comment, there are general themes that I thought needed to be addressed directly in my final recommendation. These include: (1) adjusting the timing of the commercial trap gear closure to better fit the presence and absence of right whales in Massachusetts' waters; (2) exempting those waters south and west of Cape Cod to the commercial trap gear closure; (3) considering adjustments to the implementation of a recreational trap gear haul-out requirement; (4) establishing the frequency and location in which contrivances must be inserted into a buoy line to achieve 1,700 pound breaking strength; and (5) continuing to allow single trap fishing in certain state waters. Finally, I address the issue of "ropeless" fishing in my discussion and in a companion memorandum.

[1] As explained in NMFS's draft biological opinion published on January 15, 2021:

> A decision support tool (DST) was developed by the Northeast Fisheries Science Center to aid in the comparison of spatial management measures toward the development of the ALWTRP proposed rule to reach a 60% risk reduction target. This model calculates North Atlantic right whale entanglement risk based on three components: (1) line density, (2) whale density, and (3) gear threat per line. The distribution of whales is from either a habitat density model analyzing right whale distribution through 2017 or, in Southern New England where distribution has recently shifted, the North Atlantic Right Whale Consortium's Sighting per Unit Effort data from 2014-2018. The gear threat model was used to determine the potential severity of entanglements of different lines. Together, these components roughly estimate the approximate risk of an entanglement that will result in serious injury or mortality, where a higher density of lines or predicted whales, and/or certain gear characteristics (e.g., high line strength, longer trawls) increase risk. This enables a semi-quantitative comparison of how different management scenarios and gear modifications are predicted to change entanglements that result in serious injury or mortality.

2021 Draft Biological Opinion, p.220.

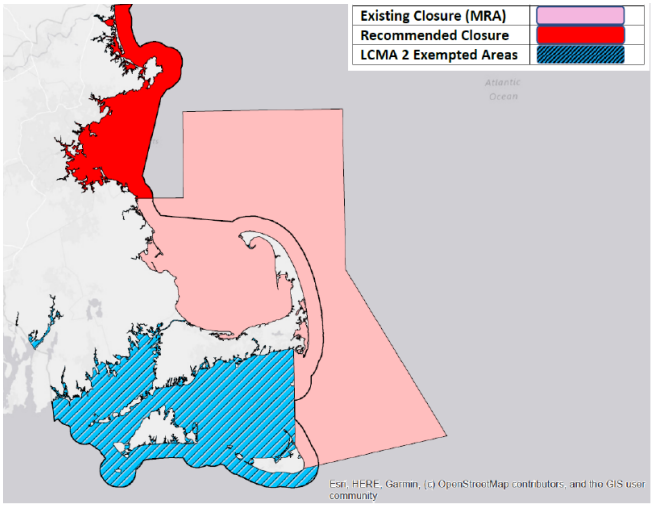
I have organized this memorandum to be recommendation specific. Each section begins with specific recommendation. I then provide my rationale for that recommendation and describe the consideration given to public comment. Given the number and complexity of the recommended measures, I strongly urge the MFAC to discuss each recommendation thoroughly and then make motions and conduct votes on each recommendation individually.

It is notable that many of these measures are also being proposed as part of the ongoing federal ALWTRP rule making process. Our recommended regulations aim to use the preferred ALWTRP rule as a baseline to work from. This allows us to have a relative reference point for risk reduction. NOAA Fisheries' decision support tool indicates the aggregate risk reduction associated with the recommended final regulations—as set forth in this memorandum—is 76.3%; this is substantially higher than the 60% which the ALWTRP proposed rule seeks to achieve. This additional conservation is not only beneficial to right whales, we believe it is necessary to ensure the success of our ITP application.

Commercial Trap Gear Closure

Recommendation: I recommend the MFAC approve a February 1 – May 15 commercial trap gear closure for all waters under the jurisdiction of the Commonwealth, except for those within LCMA 2 (i.e., south and west of Cape Cod) (Figure 2).

Fig. 2 – Recommended Trap Gear Closure Area



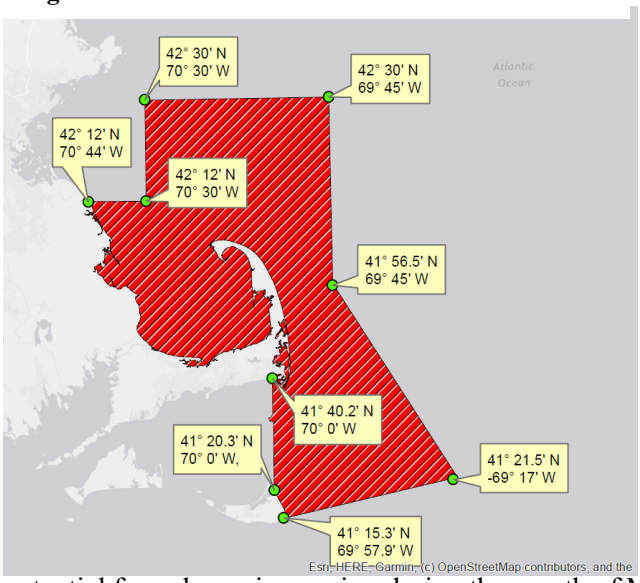
For waters north of Cape Cod, this recommendation is more restrictive than what was proposed at public hearing, by adding a 15-day dynamic closure period of May 1 – May 15. Concurrently, I am seeking an authorization to rescind the closure—or portions thereof—after April 30 if right whale monitoring data demonstrates that the whales have left the area. Please note, I intend to retain the existing authority that allows for the extension of the trap gear closure—or portions thereof—beyond the prescribed reopening date if there continues to be a documented presence of right whales in state waters. This is necessary to prevent fishermen from setting gear in the presence of right whales, which may result in entanglements.

For those waters under the jurisdiction of the Commonwealth south and west of Cape Cod, this recommendation is less restrictive than what was proposed at public hearing. As conch potting occurs almost exclusively in these same waters, I am also not making a recommendation to extend the existing conch pot haul out period (December 15 – April 15). However, any conch pot fishing that may occur inside the current and recommended extended closure area (e.g., Wellfleet Harbor) would be prohibited under the recommended commercial trap gear closure.

Rationale: This recommendation is the cornerstone of this regulatory proposal and of DMF's ITP application for right whales. Requiring the seasonal removal of trap gear from the water at times and in places where right whales are known to occur represents the most significant action the state can take to reduce the risk of right whale entanglements from fixed gear fishing.

In 2015, DMF and NOAA Fisheries promulgated regulations that closed the Massachusetts Restricted Area (MRA) (Figure 3) to trap gear fishing from February 1 – April 30. Then, in 2016, DMF adopted a dynamic regulatory means to extend this closure—or parts thereof—in state waters into May if right

Fig. 3 – Massachusetts Restricted Area



whales remained present. Now DMF is seeking to extend this commercial trap gear closure in both time and space.

The initial proposal would have extended the seasonal trap gear closure to all waters under the jurisdiction of the Commonwealth—including those waters south and west of Cape Cod—during the current closure period of February 1 – April 30. Based on public comment, I have developed a modified recommendation affecting both the spatial and temporal aspects of this closure. First, I am recommending the commercial trap gear closure be extended only to those state-waters north of the MRA in Massachusetts Bay and off Cape Ann. Second, I am recommending the closure period be extended through May 15 for those waters north and east of Cape Cod with the potential for a dynamic opening during the month of May.

We received much testimony from LCMA 2 lobster trap fishermen objecting to a seasonal trap gear closures around Buzzards Bay and Vineyard Sound. Commentors stated that right whales are not prevalent enough in these waters to justify the action, and they argued that a closure in this area would produce a substantial negative economic impact on the inshore lobster fishery while providing negligible right whale conservation.

In response to these comments, DMF requested that NOAA Fisheries evaluate the relative risk posed by allowing trap gear fishing in the state waters portion of LCMA 2 during the February 1 – May 15 period. NOAA Fisheries' decision support tool demonstrated that exempting this area would increase risk by only 1.4% relative to the baseline of a state-wide seasonal trap gear closure. In other words, the risk of an entanglement in Massachusetts state waters causing a serious injury or mortality—an exceedingly rare event to being with—is virtually the same whether the state waters portion of LCMA 2 is closed or not.

This information from NOAA Fisheries matches the testimony provided by the public regarding the infrequency in which right whales use these waters. Additionally, I note that there has never been a right whale entanglement attributable to the state waters portion of LCMA 2. Accordingly, the risk mitigation potential achieved by seasonally closing the state-waters portion of LCMA 2 to commercial trap gear fishing is nominal when compared to the mitigation achieved by seasonally closing those waters north of the existing MRA that right whales use with greater seasonal frequency. With this in consideration, I believe that exempting those state waters within LCMA 2 from the seasonal commercial trap gear closure regulation will not jeopardize right whale conservation, nor our ITP application.

Another important area of public comment received addressed the timing of the commercial trap gear closure. The proposed expanded area closure followed the existing closure timeline of February 1 – April 30. Some commenters argued that the temporal limits of this closure did not provide sufficient seasonal protections for right whales, asserting that these animals often begin to aggregate in Cape Cod Bay in January and do not regularly depart until early-to-mid May. For these reasons, those commentors sought DMF to include January and May in the commercial trap gear closure period.

Table 1. Right Whale Surveys and Closure Extensions (2015 – 2020)			
Year	**Late April Survey Results**	**Last Survey Results**	**Extension Decision**
2015	April 29: 60 whales present in WCCB	May 15: 0 whales observed.	No extension.
2016	April 29: 5 mother-calf pairs departing CCB	N/A	No extension.
2017	April 26: 100 – 200 whales present in CCB	May 4: 0 whales observed	Closure extended then lifted on May 4
2018	April 22: 100+ whales present in CCB	May 14: 0 whales observed	Closure extended then lifted on May 15
2019	April 25: 57 whales observed	May 9: 0 whales observed	Closure extended then lifted on May 10
2020	April 25: 2 mother-calf pairs observed	April 29: 0 whales observed.	Closure initially extended but the lifted for May 1

Since the implementation of the MRA closure (2015), DMF has seen a continued presence of right whales in Cape Cod and Massachusetts Bay into the final days of April and then May in five out of those six years. In four of those years, DMF extended the closure into early-to-mid May (Table 1). In fact, the only year DMF did not announce a closure extension into May when whales remained in Massachusetts' waters was the first year it was implemented (2015) because we did not have the authority at that time. The agency later developed a process to nimbly manage closure extensions.

As evidenced by Table 1, right whales are now routinely staying in state-waters throughout the final days of April and into early May. Given this pattern, it would be prudent to predict that this trend will continue in the near future. For this reason, I think it is appropriate to extend the prescribed closure end date from April 30 to May 15. This temporal extension will continue to provide protections to right whales during the first half of May when they may remain in Massachusetts' waters. However, the new closure period of May 1 – May 15 will function as a dynamic closure, in that DMF will be able to both terminate the closure early and extend the closure—or portions thereof—in response to the absence or presence of right whales.

NOAA's draft ALWTRP rule suggests that Massachusetts will adopt a three-whale threshold for managing the dynamic May closure. To address this, I intend to use continue to use our current system, whereby the closure may be extended or lifted based on the presence or absence of right whales from aerial surveys and opportunistic sightings provides grounds, and then layer on a three-whale threshold for maintaining closures around a geographic position until the whales depart. This will allow for responsive and dynamic spatial management.

While I am recommending that the end date of the closure period be extended by 15-days, the way DMF manages the early-to-mid May period will remain relatively static. DMF will continue to work to effectuate the closure opening in real-time in response to the presence and absence of whales. However, by extending the default closure to May 15, DMF will provide enhanced conservation by having the area remain closed in the absence of evidence documenting that right whales have departed state waters, particularly as bad weather or poor sighting conditions can prevent the aerial surveillance teams from completing surveys. Finally, it should be noted that I have little authority to lift the closure in the MRA prior to May 1, because there is no such mechanism in the overarching federal ALWTRP.

The question of whether to begin the closure in January rather than February is more difficult to address. NOAA Fisheries' decision support tool indicates that adopting a January 1 start date for the closure would reduce risk by additional 3%. However, the modeling assumes that the gear present on January 1 remains in the water through January 31 because the tool evaluates risk on a month by month (rather than a day by day or week by week) basis. We know this not to be true, as gear is coming home all month in advance of the current February 1 closure start date. Note that these data are self-reported by fishermen who record the maximum buoy lines for the month.

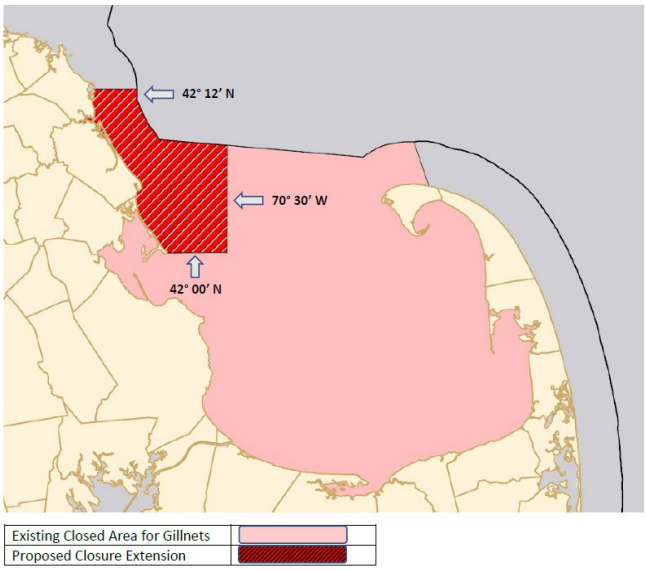
Unfortunately, the tool is not able to account for the real-time attrition of gear in state-waters throughout January, particularly in the later part of the month. If the tool had the capability to analyze risk on a more

granular level, I expect the projected potential risk reduction would be more modest. Therefore, the economic impact of reducing access to the fishery in December, particularly around the holiday market, is not warranted given the paucity of right whale sightings in December and early January.

Commercial Sink Gillnet Closure

Recommendation: I recommend the MFAC approve extending the existing January 1 – May 15 sink gillnet closure in Cape Cod Bay to include those waters west of 70° 30' west longitude between Gurnet Point at 42° 00' north latitude and Scituate Harbor at 42° 12' north latitude (Figure 4).

Fig. 4 – Recommended Gillnet Closure Area



Rationale: Sink gillnets are fixed anchored net gear. Disentanglement data show us that right whales may become entangled in this gear when swimming, and when so entangled, often carry the net panels or net fragments on them. Over the past several years we have seen whales in this area off the South Shore during the later part of the season. This overlaps with the period of time when gillnet fishing may be allowed in this area if the conditional April groundfish closure is lifted. Accordingly, it is appropriate to extend the longstanding Cape Cod Bay closure to this discrete area. The recommended action will effectively prohibit the use of sink gillnets in a discrete area of near shore waters along the South Shore from January 1– May 15.

Historically, gillnet gear has not been set in northwestern Cape Cod Bay from January 15 – May 15 due to overlapping state waters groundfish closures, federal harbor porpoise closures, and low seasonal availability of groundfish species. However, in 2019, DMF modified its groundfish fishery closures and established a "conditional closure" in the month of April that runs from Plymouth north to Marblehead. This closure has been lifted in each of the past two years (2019 and 2020) to allow for access to available groundfish habitat and federally allocated state-waters groundfish quota set-asides. This past year (2020), DMF was notified of gillnets being set off Brant Rock and Humarock during April, likely targeting cod and other groundfish that may be seasonally moving into this area. Given that right whales have been known to aggregate in this area in the spring, and they may become entangled in this gillnet gear, it is prudent to extend this gillnet closure in this time and space to prevent such entanglements from occurring.

DMF received questions and comments from the public as to why the gillnet closure does not match the trap gear closure in space and time. My decision to not entertain a larger gillnet closure was largely due to balancing the relative conservation provided to right whales against the impact to the fishery.

The most recent SAFIS harvester data documents that we had only nine active vessels fishing sink gillnets in 2019. For a variety of reasons, this number has continuously declined over the years. Permitting data shows that for 2020 the mean age of these active permit holders is 64.5 years. Considering the age structure of the permit holders in this fishery, and the fact that the state gillnet permit endorsement is both limited entry and non-transferable, this fishery will cease to exist in state-waters within a generation. Of the nine active vessels in 2019, only three vessels set gear in April and four in May. These active fishermen reported making 104 total trips across both months combined, and only deployed 54 vertical lines in April and 74 in May. Undoubtably, the scale of this fishery is small and shrinking. Given these factors, and that right whales do not appear in Massachusetts Bay in the same

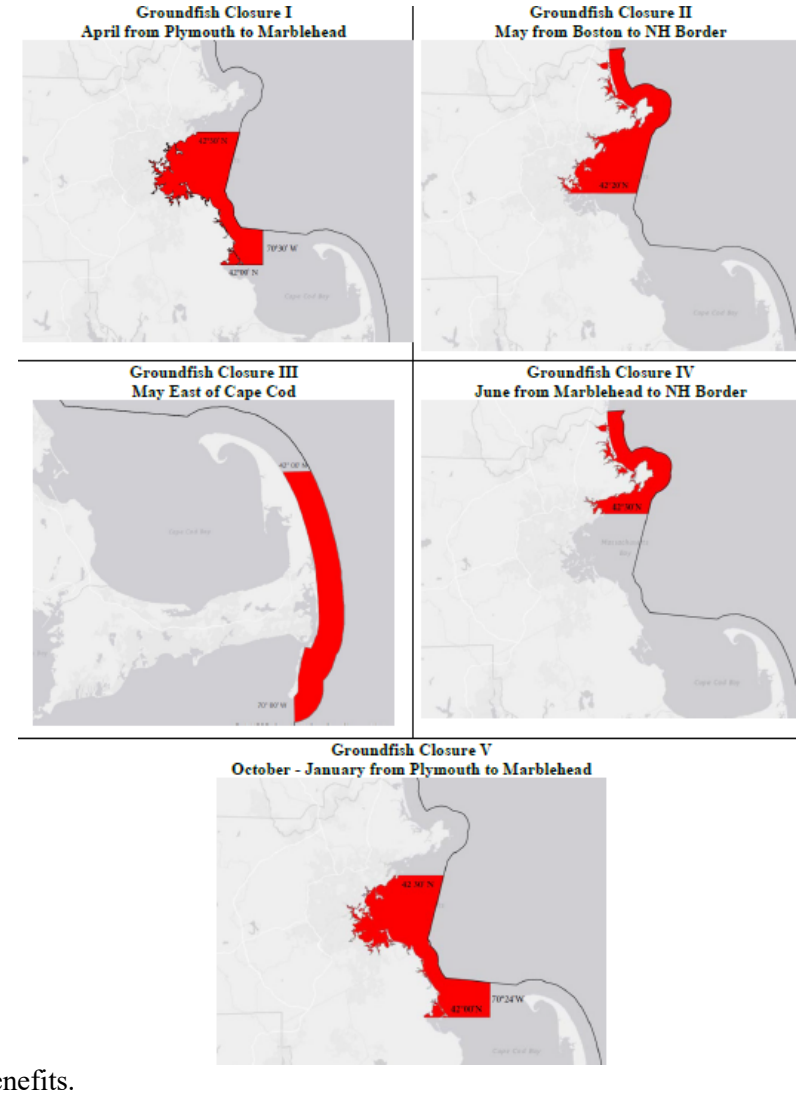
numbers and densities that they do in Cape Cod Bay, there is a diminished risk of right whales becoming entangled in sink gillnet gear in Massachusetts Bay and around Cape Ann.

Additionally, due to management measures and seasonal availability, the fishery is largely seasonal. Through a combination of groundfish and protected species regulations, the state sink gillnet fishery is effectively closed throughout most areas during the fall and winter. Therefore, effort principally occurs from the spring to early fall and peaks during the summer period.

Even when the fishery is open and active, it is subject to substantial seasonal groundfish mortality closures (Figure 5) that prohibit setting gillnets in certain areas by month.

Given these considerations, extending the January 15 – May 15 gillnet closure to the Massachusetts-New Hampshire maritime border would have a disproportionate economic impact on this small, seasonal fishery without providing meaningful additional conservation benefits.

Fig. 5 Current State-Waters Groundfish Closures



Recreational Trap Gear Closure

Recommendation: I recommend the MFAC approve a November 1 – May 15 buoyed recreational trap gear haul-out period for all waters under the jurisdiction of the Commonwealth. This includes those state waters within LCMA 2 where the commercial fishery is exempt from a closure. This haul-out period would not apply to the buoy-less gear that is typically fished along the banks of the Cape Cod Canal. Traps in the Canal are typically tethered to the shoreline with cable and are not rigged with vertical buoy lines that a right whale could become entangled in.

Rationale: In recent years, DMF-MEP wintertime gear removal efforts have identified that upwards of 80% of lost or abandoned gear found in the MRA is attributable to recreational lobster trap fishermen. These fishermen typically fish single buoyed traps that may be more easily moved by weather events or are lost due to the inadequate skill of the operators. By having a haul-out period prior to the start of the winter, fishermen will be required to remove their gear from the water before weather deteriorates, thereby resulting in less gear being abandoned by this sector. Additionally, DMF and the MEP will have ample time and weather windows to survey state-waters and to ensure abandoned gear is removed well in advance of the arrival of right whales in the mid-to-late winter.

We did receive numerous public comments from recreational fishermen that objected to this proposal. Some argued that the state should not implement a haul-out period because the quantity of recreational lobster gear is minimal when compared to the commercial sector.

In 2019, DMF completed a technical report characterizing the recreational lobster fishery in Massachusetts (TR-69). Using the analysis provided in this report, we can make a number of assumptions regarding recreational lobster trap fishing activity in 2020. Given that DMF issued about 3,100 active recreational lobster permit holders last year, we would expect that about 2,500 permit holders fished trap gear. On average, a recreational trap fisherman fishes on average about 7 traps configured as singles, meaning that the recreational lobster fishery is responsible for an estimated 17,500 vertical buoy lines. While this is a relatively small number of buoy lines as compared to the commercial sector, it is not an inconsequential number of buoy lines, particularly when viewed in the context of buoy lines attached to abandoned gear and that much of the gear we find abandoned during the winter was set by recreational fishermen.

Other commentors requested we adopt a more narrow haul-out period that allows recreational fishing to begin earlier in the spring and continue later into the fall, as inshore fishing conditions are good in certain areas during those times of year. I am sympathetic to this suggestion, as it accurately describes inshore fishing conditions, and accommodating this request is unlikely to have a negative impact on right whale conservation. Accordingly, based on these comments, I recommend modifying the haul-out period to occur from November 1 – May 15, rather than the initial proposal of the Tuesday after Columbus Day to the Friday before Memorial Day.

This November 1 – May 15 recommended haul-out period will likely still be objectionable to some recreational fishermen who want to continue to fish into the winter and begin fishing earlier in the spring. I do not find the arguments to extend the season into the winter to be all that persuasive. The anticipated benefits associated with such a haul-out period are substantial. I anticipate it will reduce the quantity of abandoned gear in the water come winter time as fishermen will be required to haul it out before weather worsens and DMF and MEP will have ample opportunities to remove any abandoned gear that is observed. As for spring fishing, I cannot conceive of a management program that would allow recreational trap fishing to begin before commercial fishermen are authorized to set gear. In theory, a spatial exemption could be considered for the waters south and west of Cape Cod, which may not be subject to the commercial trap gear closure. However, DMF does not license the recreational fishery with area-specific endorsements—as is done with the commercial trap fishery—so adopting area-specific haul-out requirements would be administratively difficult to manage and enforce.

Finally, some commenters suggested that DMF should reduce the 10-trap limit for recreational fishermen. The 10-trap limit is established by statute at G.L. c. 130, §38, and therefore requires action by the state legislature.

Single Pot Prohibition

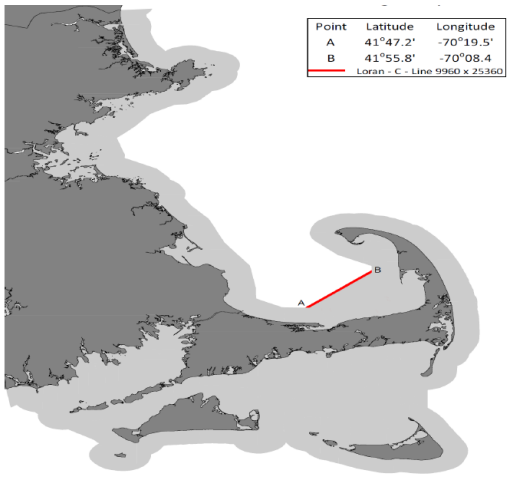
Recommendation: I recommend the MFAC approve DMF's prohibition on the setting of single lobster traps from vessels 29' and larger. If approved, this rule will not go into effect until January 1, 2022.

Note that G.L. c. 130, §37 prohibits the setting of anything other than single traps in the Town of Gosnold[2]. While DMF hopes to work with the legislature to repeal this longstanding prohibition, there is no certainty that this will occur, or occur prior to January 1, 2022. Accordingly, the recommended final

[2] G.L. c. 130, §37, "In the waters of Gosnold in the county of Dukes County, no such pot, trap or other contrivance shall be buoyed otherwise than separately and plainly."

regulatory language contains wording that ensures state regulations work in tandem with overarching state law.

Fig. 6 Single Trap Exemption Areas and Billingsgate Exemption Line



Under the recommended rule, the existing single trap exemption areas (Figure 6) would continue to apply to those vessels smaller than 29'. This means that north of Cape Cod, exempted vessels may continue to fish single lobster traps only inside of 3 nautical miles from shore and within the Billingsgate Shoal exemption line (red line). For south and west of Cape Cod, exempted vessels may continue to fish single lobster traps in all state waters.

Rationale: After removing gear from the water during times and in places where right whales are known to aggregate, one of the more effective conservation measures DMF can take is substantially reducing the number of buoy lines being fished during times and in places where right whales might be present. Under current state rules, lobstermen are required to fish only one buoy line on doubles and triples (trawls of four traps may utilize two buoy lines). If a fisherman moves from fishing singles to fishing doubles or triples, the number of buoy lines they fish is reduced by 50% or 67%, respectively. In turn, the potential risk of right whale entanglements is being reduced.

DMF received a number of public comments objecting to this proposal. Generally speaking, there were several concerns: (1) the 29' cut off is arbitrary; (2) the requirement would adversely affect how certain fisheries have been historically conducted, particularly in the OCCLCMA where single traps are the predominant gear configuration; and (3) a blanket prohibition does not provide for injury or physical handicap that may prevent a fisherman from safely fishing trawls.

I fully understand the criticism of the 29' cut off rule. I proposed this cut off because I wanted to provide an opportunity for smaller vessels to continue to fish single traps, as trawling up may create serious safety issues for fishermen aboard small vessels. Unfortunately, there is no specific risk reduction target or safety metric that I can apply to develop a threshold for single trap fishing. Instead, I came to a general understanding of the approximate vessel length needed to safely fish trawls relying on feedback provided by industry and the agency's collective field work experience. Based on this, I settled on the 29' foot cut off rule as a means of continuing to allow smaller vessels to safely fish with single trap gear. While I admit that 29' is not a number that can be arrived at through a mathematical formula, I do not regard it as arbitrary.

Certain OCCLCMA fishermen also objected to the trawling up requirement generally. They stated that based on lobster migration and oceanographic conditions, the fishery in this area was conducted principally with single traps. This is especially true for Nauset fishermen, as treacherous shoaling challenges lobstermen to navigate the opening to the sea and motivates many to fish smaller vessels, although not all less than 29'. Moreover, the effort control plan for the OCCLCMA produced trap allocations based on history of reported traps fished. As a result of historical fishing effort, many current participants have low trap allocations, so they seek to maximize their catch by fishing single traps. With this in mind, the fishermen argued that requiring fishermen to trawl up would impact the efficiency of the fishery and potentially result in gear conflicts among fishermen fishing in this narrow band of state waters east of Cape Cod. I suspect that there may be ways to meet in the middle. Rather than fishing large trawls, fishermen in this area may be able to fish doubles and triples. As described above, this switch over will reduce the number of buoy lines in the water column and further reduce entanglement risk, which is critical to our ITP application. It is also an approach that is common in certain inshore areas of Maine, as

it allows their fishermen to continue to efficiently fish in tight areas without having to switch over to larger trawls that would be ineffective and cause gear conflicts.

Lastly, I heard and acknowledge the concerns some commenters expressed regarding the ability of disabled fishermen to safely fish trawls. I am sympathetic to these comments and am willing to make reasonable accommodations for good cause. Under existing regulations, the Director has the authority to condition fishing permits and issue Letters of Authorization. This provides DMF with a mechanism to create good cause exemptions. If the single trap prohibition is approved, I would be open to establishing a policy that stipulates the criteria by which DMF may use this authority to allow fishermen to continue to fish single traps as a reasonable accommodation for a disability.

Despite these objections in the public comment, I think it is appropriate to move forward with the recommended regulation due to the level of potential right whale entanglement risk being mitigated. Additionally, in DMF's ITP application for sea turtles, it is very likely that DMF will need to further address the fishing of single traps in commercial trap fisheries to mitigate for entanglements. For these reasons, there is little added benefit in delaying implementation of this trawling up requirement for the state waters lobster trap fishery. Instead, I think it is far more beneficial for DMF and the MFAC to take initiative to move this rule forward and demonstrate the importance of reducing risk in this manner.

1.700 Pound Breaking Strength Line

Recommendation: I recommend the MFAC mandate that all commercial trap fishermen deploy buoy lines that have a breaking strength of 1,700-pounds or less. This can be accomplished in two ways. First, by fishing with 1,700-pound breaking strength line. Second, weak contrivances that have been approved by NOAA Fisheries may be inserted into the buoy lines no less than every 60' in the top 75% of the buoy line. I further recommend this rule become effective on May 1, 2021. This ensures that the rule will be in effect by at the earliest time when commercial trap gear may be set north of Cape Cod if the dynamic closure is lifted and it will provide fishermen fishing south and west of Cape Cod two-to-three months to rig over their gear.

Rationale: Conservation engineering efforts have focused on designing buoy lines that are sufficiently strong to allow for the hauling of trawls, but weak enough to more readily break when a right whale encounters it so that injury and mortality risks are reduced. A 1,700-pound breaking strength line has been identified as being sufficient to meet this objective. The adoption of this weak rope standard allows for the trap fishermen to fish buoy lines that present a much lower risk of injury or mortality to right whales.

Fishermen can achieve compliance with this weak rope standard by rigging their gear with buoy lines that have a 1,700-pound breaking strength. Additionally, fishermen may also modify their buoy lines with so-called "weak contrivances" that allow for the line to break when exposed to 1,700-pounds of tension. All weak contrivances must be approved by NOAA Fisheries. At present, NOAA Fisheries has only one approved buoy line modification. This is the so-called "South Shore sleeve" (Figure 7), which was developed by the New England Aquarium and the South Shore Lobsterman's Association.

Fig. 7 South Shore Sleeve

Weak contrivances provide fishermen with some flexibility in obtaining regulatory compliance with the 1,700-pound breaking strength buoy line standard. First, it allows fishermen to maximize the life expectancy of their current gear, as they can modify their existing buoy lines and not be forced to immediately purchase new weak rope. Second, if they determine they do not want to fish weak rope, they can continue to fish their preferred rope with these modifications.

At the time the draft regulations were published for public comment, we did not have adequate guidance from NOAA Fisheries regarding the frequency that weak contrivances should be rigged into the buoy line to comply with the 1,700-pound breaking strength mandate. Since the release of the draft ALWTRP rule, we have obtained some clarity on this issue.

NOAA Fisheries' preferred rule requires one weak contrivance 50% down the buoy line for state waters and two weak contrivances at 25% and 50% down the buoy line for federal waters in the 3–12 mile band. This provides a baseline for DMF to develop its state waters requirement, as the waters under the jurisdiction of the Commonwealth include areas that are 0-3 miles from shore, as well as larger embayments (e.g., Cape Cod and Massachusetts Bay) that more closely resemble the 3-12 mile jurisdiction of federal waters.

Considering our ongoing ITP application, we would be well served to differentiate ourselves as being more conservative than fisheries in other jurisdictions. The frequency that weak contrivances are to be inserted into the buoy line is an area where we can meet this objective. Considering the bathymetry of state waters, the burden on fishermen of purchasing and inserting weak contrivances, and the need to make buoy lines safer to right whales we have determined that a reasonable compromise is to require a weak contrivance every 60' in the upper 75% of buoy lines.

Our informed opinion is that most commercial fishermen deploy buoy lines with an approximate scope of 150% depth. For example, fishermen fishing in 100 feet of water are expected to fish 150' of buoy line. Under this example, the fisherman would be required to have two weak contrivances spaced 60' apart in the upper 75% of the buoy line. Compare this to a fisherman fishing in 40' feet of water with 60' of buoy line who would have to rig their buoy line with only one weak contrivance in the upper ¾ of their line.

Amy Knowlton is a researcher from the New England Aquarium who worked with the South Shore Lobsterman's Association to develop the South Shore sleeve. She had advocated that these weak contrivances be implemented once every 40'. This 40' standard is derived from the approximate girth of a right whale and the need to include frequent insertions to enhance the likelihood that the line splits if it becomes wrapped on a whale. This topic was debated at length by the ALWTRT, and while there was general agreement that "more is better" for conservation, there was no consensus opinion specific to the frequency at which they should be inserted. Additionally, there are not any published studies on the relative effectiveness of different spacing on reducing the potential for serious injury or mortality on large whales.

Our challenge, therefore, is to provide measures that reduce the potential for serious injury or mortality to right whales in the event of an entanglement, while balancing it with operational feasibility in our fishery. We think a 40' requirement would be too burdensome for our inshore fleet, as it presents both safety and operational challenges. More frequent inserts may present fisherman safety issues related to snapping lines can hit fishermen, altering the center of gravity of the vessel when hauling gear, and producing a greater need to grapple for gear. This may also result in more gear being lost at sea. Additionally, the 40' standard may be unnecessarily onerous for those fishermen who fish in the inshore shallow waters, as they will be required to rig their buoy lines with multiple contrivances despite there being little evidence of right whale co-occurrence at these depths when our fishery is open during the summer and fall months.

We feel that requiring a weak contrivance every 60' strikes the balance between right whale conservation and the operational needs of our trap fishing industry. DMF will continue to work with NOAA Fisheries, the ALWTRT, and our commercial fishing industry to evaluate the efficacy of the every 60' placement of weak contrivances. If future data or study results suggest a need or benefit to increasing the frequency of weak contrivances, DMF will evaluate these and modify regulations as necessary to protect right whales.

It is notable that many of our fishermen are dual federal and state permit holders. It is common for these fishermen to move their gear across the state-federal boundary line throughout the season following the lobster migration. If this recommendation is approved, these fishermen would not need to change buoy lines as they move the gear from state to federal waters. Instead they can fish the buoy lines that comply with state regulations in federal waters where the buoy lines would exceed the federal requirements for frequency of weak contrivances.

There are several ongoing projects that are designed to help fishermen comply with the new weak rope requirements and subsidize upfront capital investment costs. DMF has received a grant to purchase South Shore sleeves and weak rope and distribute them at no cost to the industry. To date, DMF has purchased 4,500 South Shore sleeves and 450 coils of weak rope. DMF has also hired a gear technician responsible for distributing the gear to fishermen, as well as working with fishermen to develop and test additional weak contrivances for eventual review and approval by NOAA Fisheries. The Massachusetts Lobsterman's Association (MLA) is also working with Rocky Mount Cord Company to manufacture and distribute weak rope. For 2020, the MLA purchased 700 coils of the prototype 1,700-pound breaking strength buoy line and distributed the rope for fishermen to test. They are now working with the same manufacturer to develop a new second version of the 1,700-pound breaking strength buoy line to address feedback received about the prototype not being true to diameter specifications and being too "stretchy". If fishermen need to purchase the South Shore sleeve on their own, the costs are fairly low per unit. The estimated cost per sleeve is $0.91 and sleeves can be bought directly from the manufacturer (NoviBraid) or from local fishing supply companies.

There was general support for this requirement in the public comment. That said, with the additional guidance provided by the draft ALTWRP rule and feedback from NOAA Fisheries relative to our ITP application, I anticipate some fishermen may find the 60' rule for weak contrivances to be burdensome. However, I think it strikes a reasonable, conservation-minded balance that ensures the state is doing more to reduce risk than what is required in other jurisdictions without placing too much of a burden on industry.

Maximum Buoy Line Diameters
Recommendation: I recommend the MFAC vote to mandate a maximum buoy line diameter of 3/8" for all commercial trap fisheries and 5/16" for the recreational lobster/crab trap fishery.

Rationale: This recommendation serves two distinct functions. First, it reduces potential injury and mortality to right whales if an entanglement were to potentially occur, as lighter diameter ropes break free more easily. It should be noted that the 1,700-pound breaking strength buoy line being manufactured meets the 3/8" maximum buoy line diameter specification. Therefore, those commercial fishermen who transition to using this gear will comply with the recommended regulations on breaking strength and buoy line diameter. Second, it establishes a de facto gear marking system that will assist in differentiating Massachusetts' trap gear from heavier gear that is commonly fished offshore or in Canada. In other words, if a whale is found carrying a buoy line that exceeds 3/8" diameter, the Massachusetts fishery can be definitively excluded as a potential source. Based on the collective field work experience of the agency, I do not believe that commercial lobstermen use larger diameter rope for buoy lines in Massachusetts state waters today, but the lack of a regulatory requirement to that effect could undermine efforts to exclude Massachusetts as a source of entanglements that occurred elsewhere.

This recommendation was broadly supported in the public comment. Some recreational fishermen did object to having a standard that differs from the commercial fishery. However, given that 95% of the traps fished by the recreational fishery are fished as singles, and singles are broadly prohibited in the commercial fishery (particularly if my recommendation is adopted), it is reasonable to have a more

conservative buoy line diameter rule for recreational gear to reduce the associated potential right whale entanglement risk. Moreover, establishing a maximum buoy line diameter for the recreational fishery is important because it gives novice fishermen specific gear configuration guidelines. This will help prevent fishermen from deploying whatever line they have at their convenience, which may unwittingly pose an unnecessary potential risk to right whales.

Housekeeping
Recommendation: I recommend the MFAC vote to approve the proposed housekeeping measures that would: (1) revise and update the purpose of the state's protected species regulations to better reflect the current approach to managing protected species; (2) consolidate regulations that govern vessel interactions with right whales into one section; (3) establish a consolidated section of maps relevant to these protected species regulations; and (4) refine all regulatory language as necessary to improve the clarity and readability of the existing regulations.

In addition to this, I recommend the MFAC vote to approve the adoption of a new section of regulation to eventually address authorizing the experimental use of alternative gears.

Rationale: The rationale for adopting those housekeeping changes proposed at is obvious. DMF is consistently working to update and refine its regulations as we amend them to ensure that the legal language is clear, concise, and up to date.

The new recommendation to adopt a section of regulation to eventually address authorizing the experimental use of alternative gears is being provided in response to the extensive public interest in authorizing the use of certain remote retrievable trap gear technologies (ropeless fishing).

For now, this section will be set aside as "reserved", meaning that it will not contain specific regulations beyond the section's title. My goal is to have this section of regulation eventually contain the process by which DMF will review and authorize proposals to experiment with ropeless fishing. This will allow us to determine the efficacy of this gear and determine if it is a viable alternative to current buoyed gear. As most potential projects will require both a state issued Letter of Authorization and a federally issued Exempted Fishery Permit, DMF is working with NOAA Fisheries to develop a consistent set of regulations across jurisdictions. I anticipate draft regulations may go out to public hearing later this year.

While ropeless fishing was not in the draft regulations brought to public hearing, much of the written comment and oral testimony received addressed the issue. Accordingly, it would be prudent to address the topic in the final recommendation. As this issue is also worthy of further consideration by the MFAC, I am providing you with a supplemental memorandum that more thoroughly discusses the issue and DMF's ongoing work on the subject.

Seasonal Lobster Permit Cap
Action: I intend to annually cap the issuance of seasonal lobster permits at 150. As this is a permitting regulation to be promulgated pursuant to G.L. c. 130, §80, it does not require a formal MFAC vote. However, I am seeking consensus from the MFAC that they do not object to this action.

Rationale: State law at G.L. c. 130, §38 establishes that DMF shall issue a commercial seasonal lobster permit. This permit is to be issued to verifiable full-time students who are Massachusetts' state residents. The statute also establishes a seasonal lobster fishing season of June 15 – September 15 and a 25-trap limit. This effectively creates a program whereby young fishermen can learn how to operate a scaled-down commercial lobster business and gain the experience necessary to safely operate a full-time commercial lobster business and obtain a coastal or offshore lobster permit.

Unlike the full-time commercial lobster permits, the seasonal lobster permit is open entry. This means that any eligible person may obtain the permit. This is appropriate for the apprentice style program it was intended to establish. However, it does create a question of latent effort when managing for potential risk to right whales. It is conceivable that an increase in effort in this fishery could result in an unanticipated increase in buoy lines in the water.

While the potential for this to occur is likely minimal, DMF is facing significant pressure to address buoy line reduction strategies. Accordingly, it is appropriate to establish some type of safeguard against the risk posed by this potential latent effort. To do this, I intend to cap the total number of seasonal lobster permits issued at 150. This is effectively 150% of the current level of participation, thereby allowing for a nominal amount of new interest moving forward.

Attachments
Recommended Strikethrough Regulations from Current Regulations
Supplemental Memorandum on Ropeless Fishing

Literature Cited
Pettis, H.M., Pace, R.M. III, Hamilton, P.K. (2018). North Atlantic Right Whale Consortium 2018 Annual Report Card. Report to the North Atlantic Right Whale Consortium, November 2018.

6.02: Lobster Conservation and Management

(2) Gear Restrictions. It **shall be** ~~is~~ unlawful for any person to take or attempt to take lobsters from **the** waters under the jurisdiction of the Commonwealth by the use of traps without said traps having the following features:

(f) All traps must be marked in accordance with the trap gear marking requirements at 322 CMR 4.13(2)
(g) All traps must be configured to comply with the relevant fixed gear and trap gear restrictions at 322 CMR 12.06(2) and (3).

(7) Seasonal Closures.

(a) Outer Cape LCMA. Fishing for lobster with traps is prohibited within the Outer Cape LCMA, as defined at 322 CMR 6.33, from February 1 – April 30. Fishermen are required to remove all lobster traps from the waters of the Outer Cape LCMA prior to this closed period. It shall be unlawful for any commercial fisherman authorized to fish traps in the Outer Cape LCMA to fish, set or abandon any lobster traps in the Outer Cape Cod LCMA or any LCMAs during this seasonal closure.
(b) Non-Commercial Lobster and Crab Traps. Fishing for lobsters with traps by non-commercial lobster and crab trap permit holders is prohibited in all waters under the jurisdiction of the Commonwealth from November 1 – May 15. It shall be unlawful for non--commercial lobster and crab trap permit holders to fish, set, store or abandon any lobster traps within the waters under the jurisdiction of the Commonwealth during this seasonal closure. This shall not apply to any buoyless lobster and crab trap gear set inside the Cape Cod Canal.

~~**Fishing for lobster with traps is prohibited in the Outer Cape LCMA from February 1st through April 30th. Fishermen are required to remove all lobster traps from waters of the Outer Cape LCMA as defined in 322 CMR 6.33 during this closed period. It is unlawful for any fisherman authorized to fish traps in the Outer Cape LCMA to fish, set, or abandon any lobster pots in the Outer Cape LCMA or any other LCMA during this seasonal closure.**~~

6.12: Fish Pot Fishery Restrictions

(2) Closed Season.
(a) Conch Pots. From December 15 through April 14 it **shall be** unlawful for any person to take whelks by pots or set, haul, tend or abandon conch pots in the waters under the jurisdiction of the Commonwealth.

(4) Gear Restrictions.
(d) All fish pots and conch pots must be configured to comply with the relevant fixed gear and trap gear restrictions at 322 CMR 12.06(2) and (3).

7.01: Form, Use and Contents of Permits

(2) Commercial Fisherman Permits. In order to harvest, possess or land fish, shellfish or bait for commercial purposes, the following permits are required for the following fishing activities:

(f) Seasonal Lobster. Authorizes only the named individual to harvest, possess and land lobsters for commercial purposes, to be issued only to full-time students 12 years of age or older and conditioned to authorize the harvest, possession and landing of lobsters for commercial purposes only from June 15th to September 15th of each year and further conditioned to the use of not more than 25 lobster **traps** ~~**pots**~~. **DMF may issue up to 150 seasonal lobster permits for use during any single calendar year.**

12.01: Purpose

In 1972 the federal government passed the Marine Mammal Protection Act to protect marine mammal species that may be in danger of extinction or depletion due to anthropogenic activity and to keep populations levels at sustainable levels. In 1973, the federal government passed the Endangered Species Act to provide a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. As marine mammals and sea turtle species may interact with fishing gear and fishing activity, and are protected under the Marine Mammal Protection Act or the Endangered Species Act, fisheries are managed at the state and federal level to address the risk posed to these protected species.

For the waters under the jurisdiction of the Commonwealth, the management of fisheries for protected species is accomplished by the Division of Marine Fisheries pursuant to its authorities at G.L. c. 130. Management measures have evolved over time, but currently include certain restrictions on the use and configuration of fixed gear (i.e., traps and gillnets) designed to reduce the risk of protected species becoming entangled in the gear and make any entanglements that may occur less injurious, as well as certain rules governing vessel conduct in areas where protected species may be present.

The regulations at 322 CMR 12.00 are particularly focused on minimizing the risk of interaction between fisheries, vessel activity, and North Atlantic right whales ("right whale"). The right whale is a critically endangered species. There are estimated to be approximately 400 known individuals in the population, as of 2019, and the population has been declining since 2010. Large numbers of these whales migrate into Commonwealth waters during the winter period and aggregate in Cape Cod Bay to feed on zooplankton before migrating out of the area during the early spring.

To address these risks, DMF has promulgated a series of regulations at 322 CMR 12.00 to protect right whales. This includes: a February 1 – April 30 seasonal closure of all waters under the jurisdiction of the Commonwealth to trap gear fishing; a January 1 – May 15 closure of Cape Cod Bay and certain adjacent waters to gillnet gear; and a March 1 – April 30 speed limit for small vessels operating in Cape Cod Bay and certain adjacent waters. Each of these seasonal restrictions may be extended beyond their end date in response to the continued presence of right whales in the waters under the jurisdiction of the Commonwealth.

The protected species regulations at 322 CMR 12.00 reflect only a part of Division's efforts to address protected species. DMF also regulates buoy line marking for gillnets and trap gear 322 CMR 4.00, establishes lobster and fish trap fishing seasons at 322 CMR 6.00, and restricts the issuance of lobster and trap fishing permits at 322 CMR 7.00. In aggregate, these various regulations create a portfolio of measures designed with the goal of minimizing the impact fishing and vessel activity may have on protected species when in the waters under the jurisdiction of the Commonwealth and improving management moving forward.

~~**The Division of Marine Fisheries works to protect marine protected species such as endangered turtles, harbor porpoise and large whales. The Division's efforts dovetail with federal regulation of marine mammals, including the northern right whale is the rarest of the world's great whales. Despite international protection by the International Whaling Commission established pursuant to the 1946 International Convention for the Regulation of Whaling and national protection afforded by the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973 the northern right whale is listed as endangered and its population remains dangerously low in the Atlantic.**~~

~~**In response to this threat the Massachusetts Legislature passed a Resolve in 1985 requesting the Department of Fisheries, Wildlife and Environmental Law Enforcement to study the right whale in Massachusetts waters and make recommendations for its conservation. That study recommended, among other measures, a 500 yard buffer zone between right whales and vessels within Massachusetts waters. The purpose of 322 CMR 12.00 is to:**~~

~~**(1) implement a 500 yard buffer zone and prohibit activities of vessels that affect large whales, including right whales, within waters under the jurisdiction of the Commonwealth. 322 CMR 12.00 exempts vessels with federal or state Right Whale scientific study permits and commercial fishing vessels in the act of hauling back or towing gear. In addition, 322 CMR 12.00 applies to both commercial and recreational fishermen, but only to waters under the jurisdiction of the Commonwealth.**~~

~~(2) minimize the risk of large whale entanglements, including right whales in waters under the jurisdiction of the Commonwealth.~~

~~(3) reduce interactions between harbor porpoise and commercial gillnet gear in waters under the jurisdiction of the Commonwealth.~~

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~~(2) minimize the risk of large whale entanglements, including right whales in waters under the jurisdiction of the Commonwealth.~~

~~(3) reduce interactions between harbor porpoise and commercial gillnet gear in waters under the jurisdiction of the Commonwealth.~~

12.02: Definitions

For the purposes of 322 CMR 12.00 the following terms shall have the following meanings:

1,700 pound buoy line means any buoy line with a breaking strength of 1,700 pounds or less or any buoy line that is rigged with no less than one 1,700 contrivance per every 60 feet of buoy line in the top 75% of the buoy line. All contrivances shall be approved by NOAA Fisheries pursuant to the Atlantic Large Whale Take Reduction Plan.

Bottom or Sink Gillnet means a gillnet, anchored or otherwise, that is designed to be, capable of being, or is fished on or near the bottom in the lower third of the water column.

Buffer Zone means an area outward from a right whale a distance of 500 yards in all directions.

Cape Cod Bay Vessel Speed Restriction Area. The Cape Cod Bay Vessel Speed Restriction Area shall consist of all waters of Cape Cod Bay south of 42° 08' north latitude and those waters north and east of Cape Cod west of 70° 10' west longitude.

Commercial Fisherman means any person who may set gear or catch, possess or land fish for the purpose of sale, barter, or exchange or keeps for personal use any fish taken under the authority of a commercial fisherman permit issued in accordance with M.G.L. c. 130, §§ 2, 37, 38 or 80, and 322 CMR 7.01(2).

~~Critical Habitat means those waters in Cape Cod Bay under the jurisdiction of the Commonwealth that fall within the federally designated Right Whale Cape Cod Bay Critical Habitat area listed in the federal Right Whale Recovery Plan and found in 322~~

~~CMR 12.12.~~

Double means two traps connected together by a groundline with a single vertical line buoy attached.

Fixed Fishing Gear means any bottom or sink gillnets or **traps** ~~pots~~ that are set on the ocean bottom or in the water column and are usually connected to lines that extend to the water's surface.

Gillnet means anchored, or surface or drifting vertical walls of webbing, buoyed on top and weighted at the bottom, designed to capture fish by entanglement, gilling, or wedging.

Groundlines means the lines connecting traps~~/pots~~ on a trap~~/pot~~ trawl and lines connecting gillnets to anchors.

Harass means to approach, pursue, chase, follow, interfere with, observe, threaten, harm in any fashion, turn in any manner to intercept or attempt to engage in any such conduct.

Massachusetts Restricted Area means those waters described in the federal Atlantic Large Whale Take Reduction Plan and bounded by the following coordinates: beginning at the shoreline at 42° 12' N latitude; thence heading due east to where 42° 12' N latitude intersects with 70° 30' W longitude; thence due north to where 70° 30' W longitude intersects with 42° 30' N latitude; thence due east to where 42° 30' N latitude intersects with 69° 45' W longitude; thence due south to where 69° 45' W longitude intersects with 41° 56.5' N latitude; thence in a straight line in a southeasterly direction to where it intersects with 41° 21.5' N latitude and 69° 16' W longitude; thence in a straight line in a west southwesterly direction to where it intersects with 41° 15.3' N latitude and 69° 57.9' W longitude at the shoreline of Nantucket; thence following the eastern shoreline of Nantucket to where it intersects with 70° 00' W longitude; thence due north to where 70° 00' W longitude intersects with the shoreline of Cape Cod at 41° 40.2' N latitude; thence following the shore line of Cape Cod back to the original point.

~~Large Whale Seasonal Trap/Pot Gear Closure Area means those waters under the jurisdiction of the Commonwealth that fall within the federally designated Massachusetts Restricted Area listed in the Atlantic Large Whale Take Reduction Plan and established at 322 CMR 12.11.~~

Negatively Buoyant Line means line that has a specific gravity equal to or greater than that of seawater, 1.03, and does not float up in the water column.

Positively Buoyant Line means line that has a specific gravity less than that of seawater, 1.03, and floats up in the water column.

Recreational Fisherman means any person permitted in accordance with G.L. c. 130, § 38 and 322 CMR 7.01(4)(b) to catch, possess and land lobster or crabs for family use, sport, or pleasure, which are not to be sold, traded, or bartered.

Right Whale means that species of marine mammal known as *Eubalaena (Balaena) glacialis*.

Single Trap means individual set and buoyed traps.

To Abandon or To Store means to leave fixed gear in the water without hauling it at least every 30 days or in prohibited areas during prohibited periods.

To Fish means to use, set, maintain, leave in the water or haul gillnets or **traps** ~~pots~~ to harvest, catch, or take any species of fish or lobster.

Trap means any lobster trap, modified lobster trap, fish pot, fish trap, conch pot, or other contrivance, other than nets, that is placed on the ocean bottom and designed to catch finfish, whelks, lobsters or crabs.

Trawls means a series of single traps that are tied together and buoyed at one or both ends.

Vessel means any waterborn craft.

Weak Link means a breakable section or device that will part when subjected to specified poundage of pull pressure and after parting, will result in a knot-less end, no thicker than the diameter of the line, the so-called "bitter end" to prevent lodging in whale baleen. **Lawful weak links are those devices approved by the National Marine Fisheries Service pursuant to the Atlantic Large Whale Take Reduction Plan and published in the Atlantic Large Whale Take Reduction Plan's Supplemental Gear Guide.**

12.03: Prohibition on **Abandoning Fixed Gear** ~~**Certain Gear or Lines in Waters under Jurisdiction of the Commonwealth**~~

(1) It shall be unlawful for any fisherman to abandon any fixed gear in the waters under the jurisdiction of the Commonwealth.

~~**(1) It shall be unlawful for any person to fish fixed fishing gear with:**~~
~~**(a) Lines floating at the water's surface;**~~
~~**(b) Positively buoyant groundline; and**~~
~~**(c) Buoy lines comprised of positively buoyant line except the bottom portion of the line which may be a section of floating line, not to exceed ⅓ of overall length of the buoy line.**~~

~~**(2) It shall be unlawful to abandon any fixed gear.**~~

12.04: Fixed Gear Seasonal Closures

(1) Gillnet Closure **to Protect ~~s in~~** Right Whale**s in Cape Cod Bay ~~Critical Habitat and Cape Cod Bay~~**. **From January 1 through May 15, it shall be unlawful to fish, store or abandon gillnets within those waters under the jurisdiction of the Commonwealth beginning at 42° 12' north latitude and the shoreline, thence due east to where it intersects with the state-federal waters line, then following the state waters line in an easterly direction to where it intersects with 70° 10 west longitude, thence due south to where 70° 10 west longitude intersects with the coastline of Cape Cod; thence following the shoreline along Cape Cod and South Shore back to the starting point at 42° 12' north latitude and the shoreline. ~~It is unlawful to fish, store, or abandon gillnets in Critical Habitat and in waters of Cape Cod Bay west of the Critical Habitat south of 42° North Latitude during the period January 1st through May 15th.~~**

(2) Trap Gear Haul-out Period. It shall be unlawful for **~~any recreational or~~** any Commercial Fisherman, **~~permitted in accordance with M.G.L. c. 130, §§ 37, 38 or 80, and 322 CMR 7.01(2): *Commercial Fisherman Permits* or (4): *Special Permits*,~~** to fish, set, store, or abandon any trap gear in **any waters under the jurisdiction of the Commonwealth from February 1 – May 15. This shall not apply to those waters under the jurisdiction of the Commonwealth within Lobster Management Area 2, as defined at 322 CMR 6.33(2)(e). For vessels permitted by NOAA fisheries and registered in Massachusetts, this seasonal trap closure also extends into those federal waters north and east of Cape Cod within the Massachusetts Restricted Area. The portion of this closure within the waters under the jurisdiction of the Commonwealth may be extended past May 15 or rescinded after April 30 based on the presence or absence of right whales, in accordance with the process set forth at 322 CMR 12.04(3). ~~the Large Whale Seasonal Trap/Pot Gear Closure Area from February 1st through April 30th.~~**

(3) Notice of Declaration to Amend Timing of Fixed Gear Seasonal Closures. The Director, through Notice of Declaration, may adjust the duration of the fixed gear seasonal closures at 322 CMR 12.04(1) and (2), as reasonably necessary to prevent the entanglements of the North Atlantic right whale in fixed fishing gear based on the Director's assessment of the documented presence of the North Atlantic right whale in Massachusetts waters. The Director shall amend the timing of these fixed gear seasonal closures by filing the Notice of Declaration with the Secretary of State for publication in the *Massachusetts Register*, publishing the Notice on the Division's Legal Notice web page, and distributing it *via* the Division's e-mail list serve.

12.05: Speed Restrictions to Protect North Atlantic Right Whales

(1) Purpose and Scope. North Atlantic right whales are a critically endangered species. Annually they migrate through state waters and aggregate in Cape Cod Bay to feed during the late-winter and early-spring. In order to protect these whales from vessel strikes, the National Marine Fisheries Service promulgated regulations at 50 CFR 224.105 in 2008 that restrict the speed of vessels measuring at least 65 feet in overall length to ten knots while transiting certain waters around Cape Cod. In order to establish similar measures to prevent strikes of whales by vessels smaller than those regulated under the federal regulations, the Division of Marine Fisheries has established these seasonal vessel speed restrictions for Cape Cod Bay.

~~**(2) Cape Cod Bay Vessel Speed Restriction Area. The Cape Cod Bay Vessel Speed Restriction Area shall consist of all waters of Cape Cod Bay south of 42° 08' north latitude and those waters north and east of Cape Cod west of 70° 10' west longitude, as described in the map below.**~~

(2) ~~**(3)**~~ Vessel Speed Restriction and Time Period. During the period of March 1st through April 30th, all vessels measuring less than 65' overall length and operating within the Cape Cod Bay Restricted Speed Area**, as defined at 322 CMR 12.02,** shall travel at a speed of ten knots or less.

(3) ~~**(4)**~~ Exemptions. 322 CMR 12.05(2) ~~**and (3)**~~ shall not apply:

(a) Inshore Areas. Within those waters within Plymouth, Kingston and Duxbury Harbors, Barnstable Harbor and Wellfleet Harbor, as defined at 322 CMR 4.02(2) and (3).

(b) Enforcement and Emergency Personnel. To law enforcement and emergency personnel in the course of their authorized duties including, but not limited to, authorized federal whale disentanglement personnel when responding to an entangled whale.

(4) ~~**(5)**~~ Notice of Declaration to Amend the Vessel Speed Restriction Time Period. The Director may, through a Notice of Declaration, adjust the duration of the Cape Cod Bay Vessel Speed Restriction Time Period in 322 CMR **12.05(2)** ~~**12.05(3)**~~, as reasonably necessary to prevent vessel strikes on right whales, based on the Director's assessment of the documented presence of North Atlantic right whales in Cape Cod Bay. The Director shall amend the timing of these fixed gear seasonal closures by filing the Notice of Declaration with the Secretary of State for publication in the *Massachusetts Register*, publishing the Notice on the Division's Legal Notice web page, and distributing it *via* the Division's e-mail list serve.

12.06: Fixed Gear Year-round Gear Restrictions

(1) Gillnets. It **shall be** ~~**is**~~ unlawful to fish any gillnet in any waters under the jurisdiction of the Commonwealth, unless the net is rigged with the following breakaway features:

(a) Knot-less weak link at the buoy with a breaking strength of 600 pounds.

(b) Weak links with a breaking strength of up to 1,100 pounds are installed in the float rope between net panels.

(c) Anchoring system for the gillnets must anchor with the holding power of at least 22 pound Danforth anchor.

(2) Trap Gear.

(a) Weak Link Requirement. It **shall be** ~~**is**~~ unlawful to fish any traps in any waters under the jurisdiction of the Commonwealth unless all buoy lines are equipped with a Weak Link that will part when subjected to 600 pounds or less of pull pressure along the buoy line.

(b) Buoy Line Breaking Contrivance. Effective May 1, 2021 shall be unlawful for any Commercial Fisherman to fish any traps in the waters under the jurisdiction of the Commonwealth unless all buoy lines are equipped with a 1,700 pound breaking strength contrivance.

(c) ~~**(b)**~~ **Maximum** Buoy Line **Restriction** ~~Requirements~~ for Trawls. It is unlawful to fish two and three trap trawls with two buoy lines in the waters under the jurisdiction Commonwealth. Two buoy lines may ~~**only**~~ be fished **only** on trawls of four or more traps.

(d) ~~(c)~~ Prohibitions on Single Traps.

(i) Except as otherwise provided at G.L. c. 130, §37 it shall be unlawful for any commercial fisherman to set, fish or store single traps within any of the waters under the jurisdiction of the Commonwealth when using a vessel greater than 29' overall length. This prohibition shall not apply to any scup, black sea bass, or conch traps fished lawfully in accordance with 322 CMR 6.12 or eel traps fished lawfully under municipal regulations pursuant to G.L. c. 130, § 52. This prohibition shall go into effect on January 1, 2022.

(ii) It shall be unlawful for any person to set, fish or store any single traps in the waters under the jurisdiction of the Commonwealth north of Cape Cod that are seaward of three nautical miles from the mean low tide water mark, except within those waters along Billingsgate Shoal that are shoreward of Loran C Line 9960-X-25360 as it runs north east from 41° 47.2' north latitude and 70° 19.5' west longitude (Barnstable) to 41° 55.8' north latitude and 70° 8.4' west longitude (Wellfleet). This prohibition shall not apply to any eel traps fished lawfully under municipal regulations pursuant to G.L. c. 130, § 52.

(e) Restrictions on Buoy Line Diameters. It shall be unlawful for:

(i) any Commercial Fisherman to set or fish traps within the waters under the jurisdiction of the Commonwealth with buoy lines that are greater 3/8" diameter.

(ii) any recreational lobster or crab trap fishermen, permitted in accordance with G.L. c. 130, § 38 and 322 CMR 7.01(4)(b), to fish traps within the waters under the jurisdiction of the Commonwealth with buoy lines that are greater than 5/16" diameter.

~~**It is unlawful to set, fish or abandon any single traps in the waters under the jurisdiction of the Commonwealth north of Cape Cod that are seaward of three miles from mean low tide water mark.**~~

~~**Exception for Billingsgate Shoal. It is lawful to set and fish single traps within those waters under the jurisdiction of the Commonwealth within of southeast Cape Cod Bay that are shoreward of Loran C Line 9960-X-25360 as it runs north east from 41°47.2' north latitude and 70°19.5' west longitude (Barnstable) to 41°55.8' north latitude and 70°8.4' west longitude (Wellfleet).**~~

~~**(d) Buoy Line Requirement for Single Traps. It is unlawful to fish single traps with a buoy line requirement that does exceed ⅜ inch diameter.**~~

~~**(3) A list of DMF approved weak links is available from DMF and furnished to fishermen upon request.**~~

(3) Fixed Gear. It shall be unlawful for any person to fish fixed fishing gear with:

(a) Lines floating at the water's surface;

(b) Positively buoyant groundline; and

(c) Buoy lines comprised of positively buoyant line except the bottom portion of the line which may be a section of floating line, not to exceed ⅓ of overall length of the buoy line.

12.07: **Authorization for Use of Alternative Gear (Reserved)**

12.08: Conduct Related to Interacting with Right Whales

(1) Harassment and Harm. It shall be unlawful for any vessel, or operator thereof, to harass or harm any right whale at any time or place.

(2) Vessel Interactions and Buffer Zones. It shall be unlawful for any vessel registered in Massachusetts or within the waters under the jurisdiction of the Commonwealth to:

(a) enter into a Buffer Zone created by a surfacing right whale;

(b) approach or intercept a right whale from a Buffer Zone; or

(c) not depart immediately from a Buffer Zone upon the presence of a surfacing right whale.

(3) Commercial Fishing Activity and Buffer Zones. It shall be unlawful for any commercial fishing vessel which has completed a haul back, a tow of its gear, or otherwise completed its active fishing operation and is no longer at anchor not to depart immediately from a Buffer Zone upon presence of a surfacing right whale. If a commercial fishing vessel is in the act of hauling back, towing gear, or is actively

engaged in a fishing operation within a Buffer Zone created by a surfacing right whale, the vessel may complete its haul, tow or active fishing operation provided it does so with minimum disruption to the right whale and immediately departs from the Buffer Zone upon completion. This provision shall not authorize a commercial fishing vessel to begin a haul, tow, or active fishing operation in or into a Buffer Zone.

(4) Commercial Fishing. Commercial fishing vessels in the act of hauling back, towing gear or engaged in fishing operations at anchor within a Buffer Zone created by a surfacing right whale, may complete the haul, tow or fishing operation provided it does so with a minimum of disruption to the right whale, hauls, tows or conducts its fishing operation in a direction away from the right whale, and departs from the buffer zone immediately after the haul, tow, or fishing operation. In no event may 322 CMR 12.08(4) be construed to authorize a commercial fishing vessel to begin to haul, tow, or conduct its fishing operation in or into a Buffer Zone.

(5) Entanglements.

(a) It shall be unlawful for the operator of any vessel to immediately fail to report the entanglement of a right whale in any fishing gear or lines.

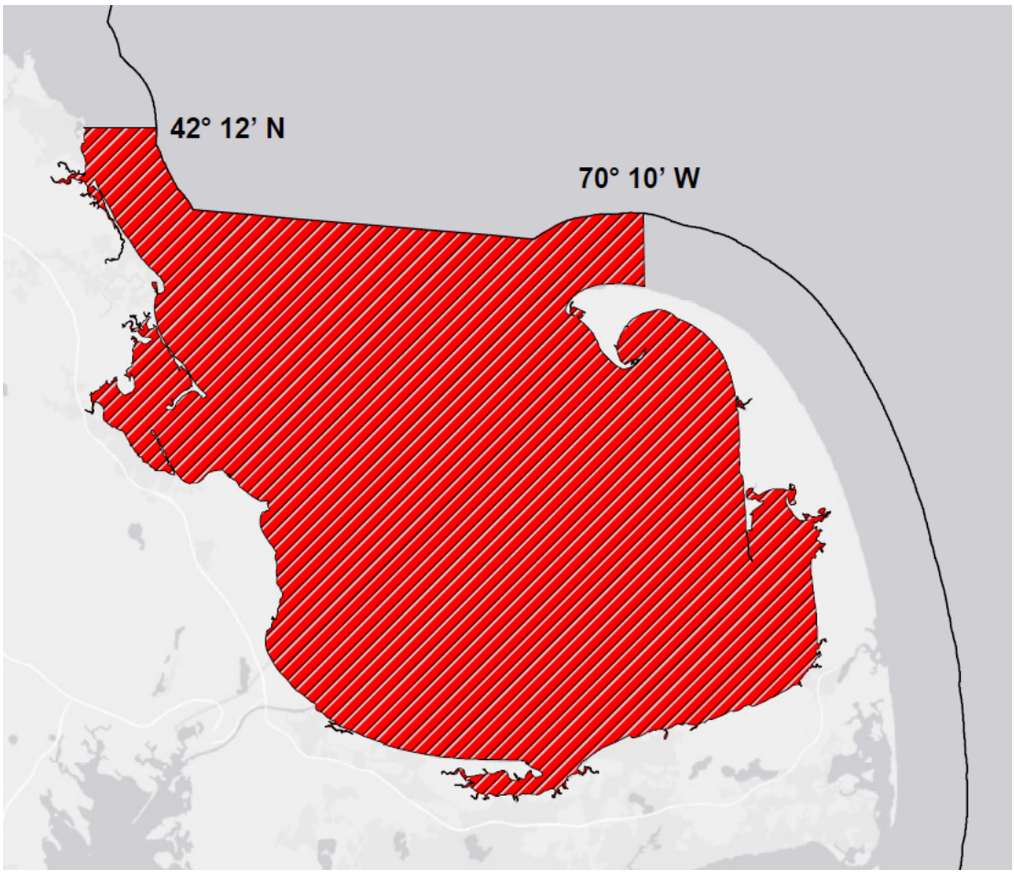
(b) Operators of vessels that observe right whales entangled in fishing gear or lines shall report said entanglements to the National Marine Fisheries Service, the Office of Law Enforcement, the Coast Guard, or to designees of those agencies, that it has sighted an entangled right whale may operate in the Buffer Zone to assist those agencies in locating and tracking the whale if requested to do so by those agencies.

(c) Upon reporting an entanglement in accordance with this section - and if so requested by the National Marine Fisheries Service, the Office of Law Enforcement, the Coast Guard, or to designees of those agencies - the vessel that has sighted the entangled whale is exempt from complying with 322 CMR 12.08(2) for the sole purpose of assisting in the locating and tracking of the right whale. Any vessel operating in accordance with this section shall operate the vessel so as to minimize the disruption to the right whale; operate the vessel at a speed of less than 10 nautical miles per hour; and immediately depart the Buffer Zone once disentanglement efforts begin or when requested to do so by the agencies or their designees.

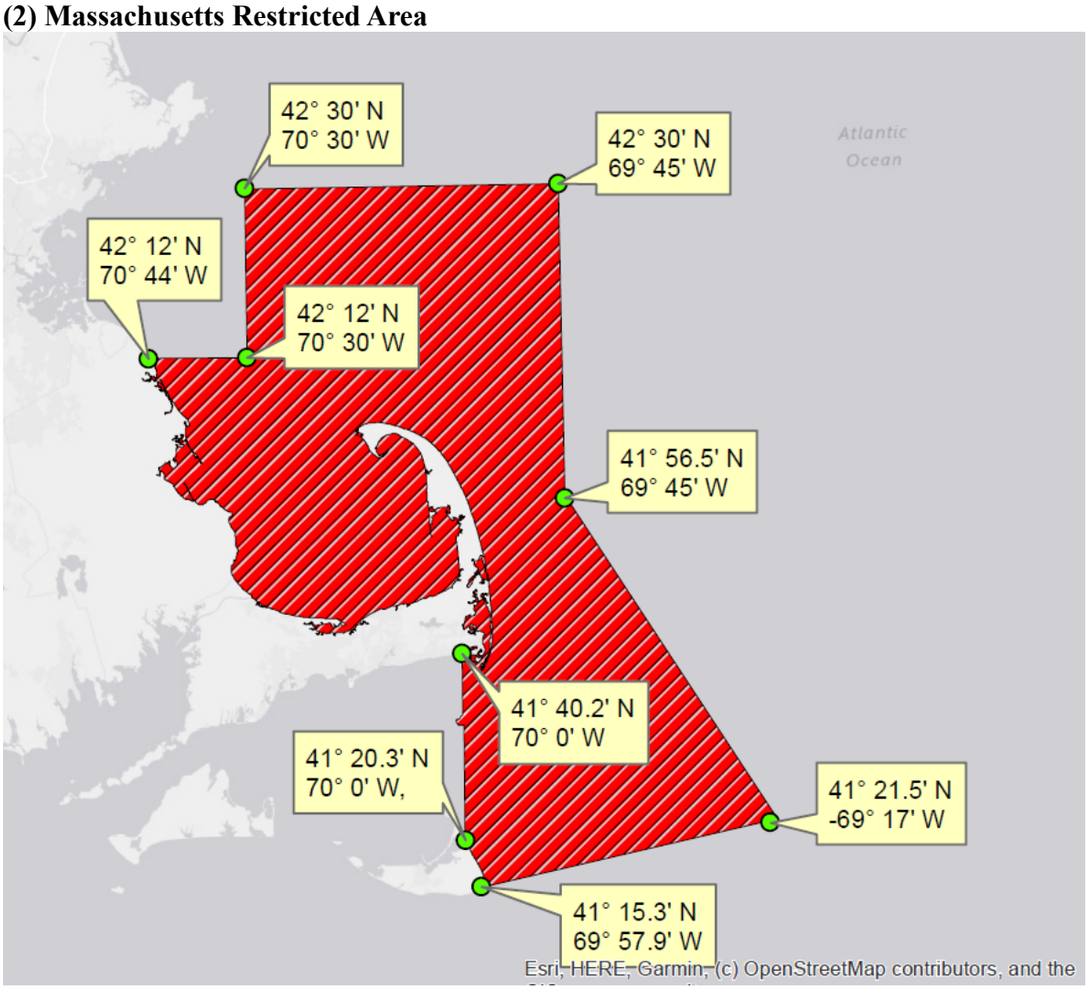
(6) Exceptions for Scientific Permit Holders. Any entity issued a special scientific permit from the Division in accordance with G.L. c 130, § 17 and 322 CMR 7.01(4)(c) or from any federal department, agency or instrumentality having the authority to issue permits for scientific research, observation, or management of right whales may be exempt from this section for the purposes of conducting the research activity authorized by such a permit.

12.09: Maps

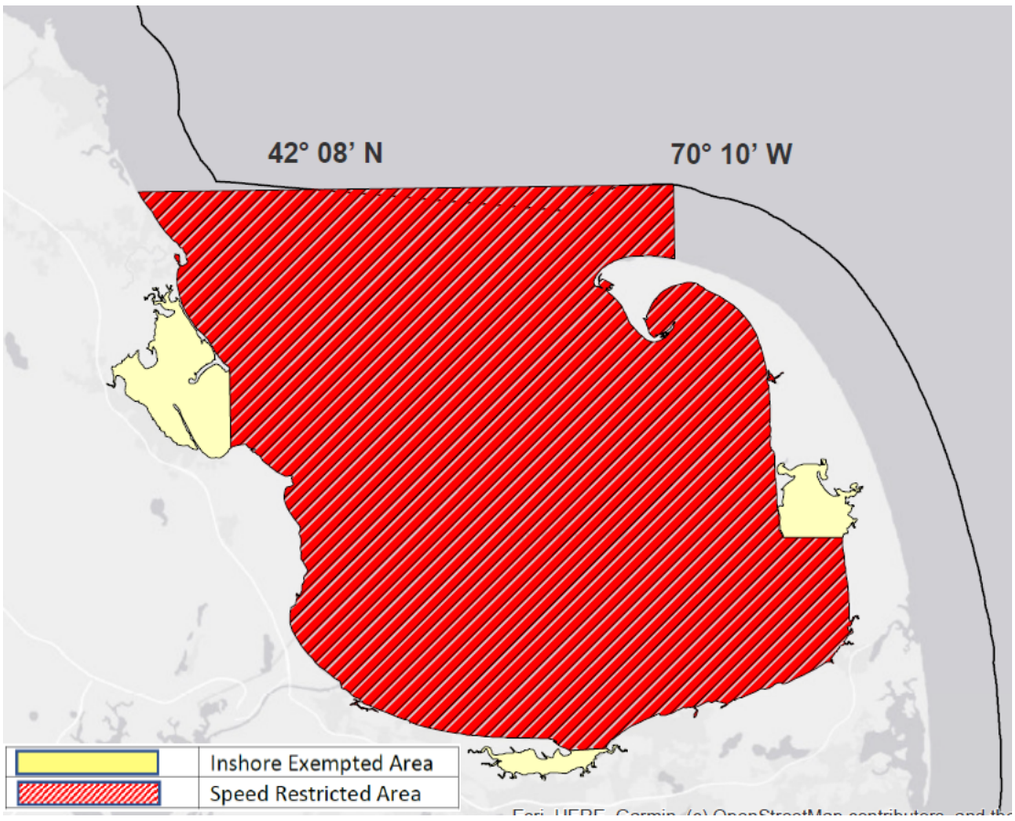
(1) Gillnet Closure to Protect Right Whales in Cape Cod Bay



(2) Massachusetts Restricted Area



(3) Cape Cod Bay Vessel Speed Restricted Area



~~**12.07: Buffer Zone**~~

~~**Except as otherwise provided for in 322 CMR 12.10, it is unlawful:**~~

~~**(1) for any vessel to enter a right whale buffer zone;**~~

~~**(2) for any vessel to approach or intercept a right whale within a buffer zone;**~~

~~**(3) for any vessel not to depart immediately from a buffer zone; or**~~

~~**(4) for any commercial fishing vessel which has completed a haul back, a tow of its gear or otherwise completed its fishing operation and is no longer at anchor not to depart immediately from a buffer zone.**~~

~~**12.08: Harassment and Harm**~~

~~**It is unlawful for any operator of a vessel to harass or to harm any right whale at any time or place.**~~

~~**12.09: Entanglement Reporting**~~

~~**It is unlawful for any operator of a commercial or recreational vessel to fail to report the entanglement of a right whale in its gear or lines.**~~

~~**12.10: Exceptions**~~

~~**(1) Federal Permit. Any person issued a permit from any federal department, agency or instrumentality having authority to issue permits for the scientific research, observation, or management of the right whale, may conduct the activity authorized by such permit.**~~

~~**(2) State Permit. Any person issued a permit in accordance with 322 CMR 7.01(4)(d) for the scientific research, observation, or management of the right whale may conduct the activity authorized by such permit.**~~

~~**(3) Commercial Fishing. Commercial fishing vessels in the act of hauling back, towing**~~

~~gear or engaged in fishing operations at anchor within a buffer zone created by the surfacing of a right whale, may complete the haul, tow or fishing operation provided it does so with a minimum of disruption to the right whale, hauls, tows or conducts its fishing operation in a direction away from the right whale, and departs from the buffer zone immediately after the haul, tow, or fishing operation. In no event may 322 CMR 12.09(3) be construed to authorize a commercial fishing vessel to begin to haul, tow, or conduct its fishing operation in or into a buffer zone.~~

~~(4) Disentanglement.~~

~~(a) To assist federally approved disentanglement efforts for northern right whales, any vessel that reports to the National Marine Fisheries Service, the Division of Environmental Law Enforcement, the Coast Guard, or to designees of those agencies, that it has sighted an entangled right whale may operate in the buffer zone to assist those agencies in locating and tracking the whale if requested to do so by those agencies.~~

~~(b) Any vessel operating in the buffer zone under 322 CMR 12.06(4) shall:~~

~~1. operate so as to minimize disruption to the right whale, and~~

~~2. immediately depart the buffer zone once the disentanglement effort begins, or when requested to do so by the agencies or their designees.~~

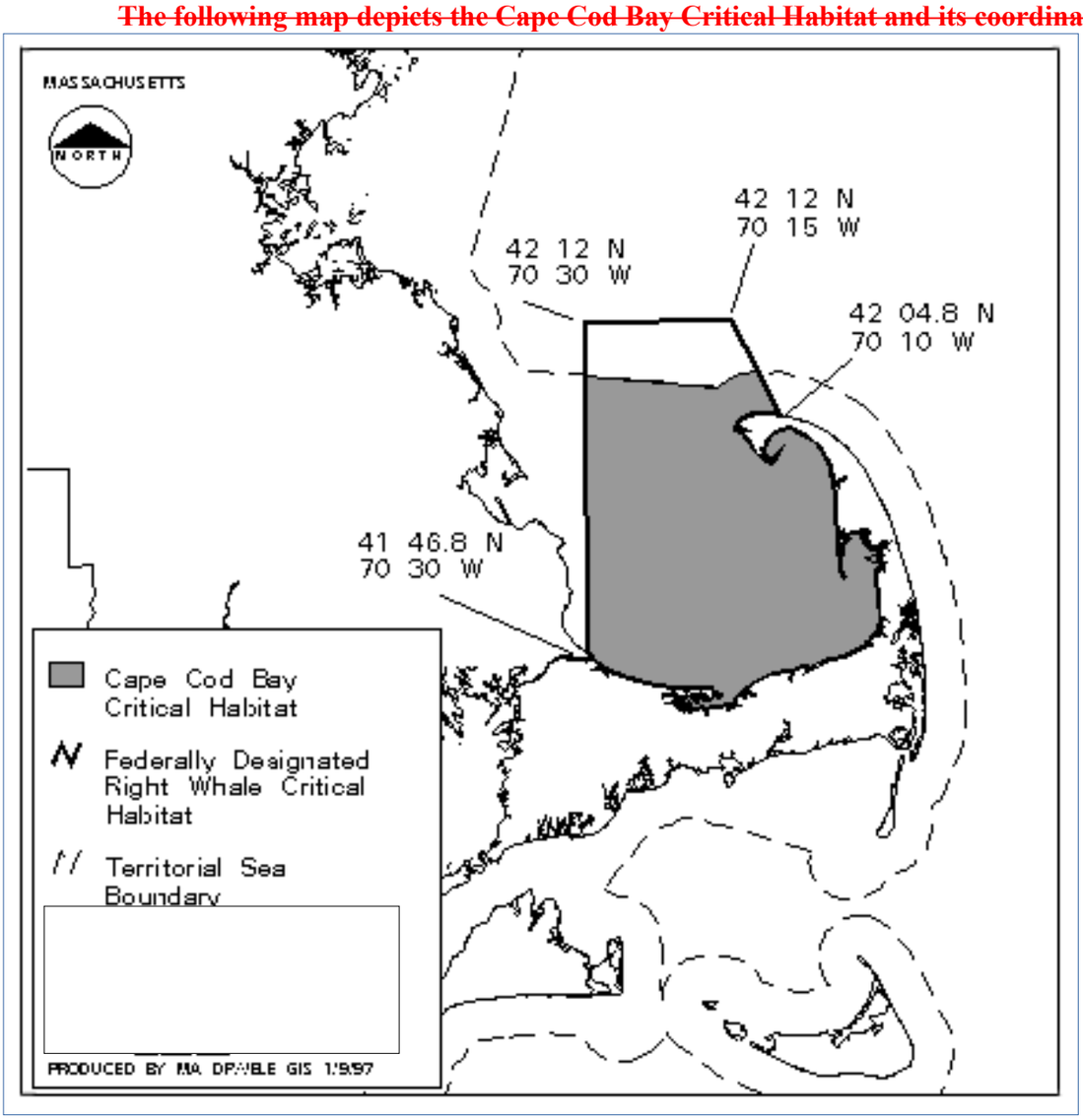
~~(c) When conducting activities within the scope of 322 CMR 12.06(4), vessels shall make every effort to comply with 322 CMR 12.00.~~

~~12.11 Large Whale Seasonal Trap/Pot Gear Closure Area~~

~~The following map depicts the federal Massachusetts Restricted Area and its coordinates. That portion of the Massachusetts Restricted Area within the waters under the jurisdiction of the Commonwealth is referred to as the Large Whale Seasonal Trap/Pot Gear Closure Area.~~

12.12: Right Whale Cape Cod Bay Critical Habitat Map

The following map depicts the Cape Cod Bay Critical Habitat and its coordinates.



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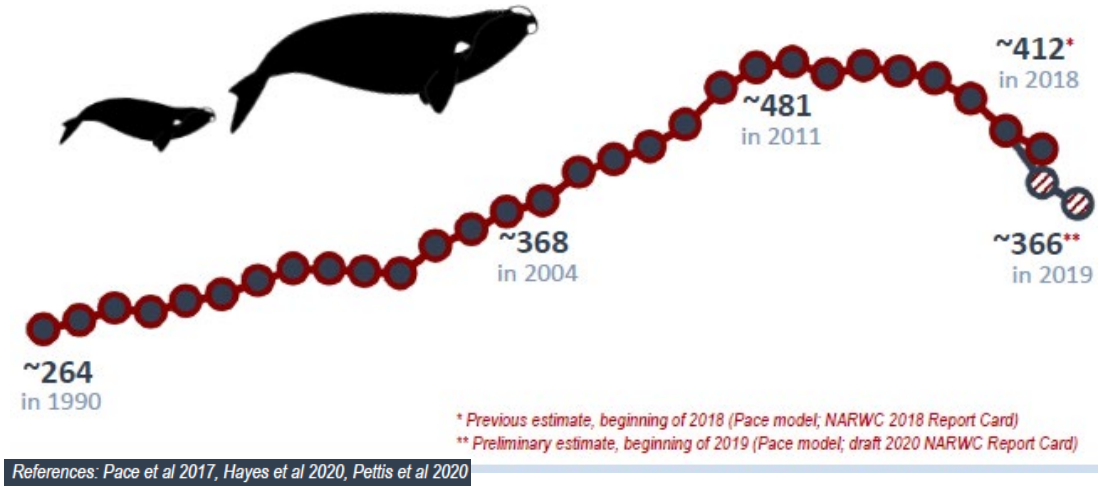
Status of North Atlantic Right Whale



- Much of the population growth of the last decade has been wiped out by elevated mortalities and reduced calves born each year
- NARWC estimates right whale population at 366 animals as of January 2019.
- Decline since 2010 coinciding with oceanographic regime shift resulting in reduced calves and changing right whale distribution.
- “Unusual Mortality Event.” Since 2017 32 mortalities and 14 additional serious injuries (likely resulting in death).
- Entanglement and vessel strike continue to be a significant source of serious injury and mortality throughout the species range.

Responding to Two Challenges

Take Reduction Team Initiative

- Since 1996 multi-decadal program to conserve right whales, working with state and federal partners on the “Large Whale Take Reduction Team” that last met in April 2019.
- Team addressing Unusual Mortality Event.
- NMFS published draft rule in December 2020; expected to be implemented by May 2021. State-specific proposals submitted to NMFS in early 2020. .

Litigation

- April 2020 US District Court ordered the Commonwealth to obtain an Incidental Take Permit from NOAA to cover “unauthorized takes”.
- DMF currently in process of applying for an Incidental Take Permit (ITP).
- These regulations are foundation of right whale ITP application.
- Trial scheduled for June 2021.

Incidental Take Permit

ITP Application Overview

- ITP application process is ongoing.
- Requires development of a Habitat Conservation Plan (HCP).
- HCP must demonstrate steps applicant is taking to minimize and mitigate impacts the activity is having on the endangered species.
- For MA, this means reducing risk of right whales and sea turtles becoming entangled in trap and gillnet gear.
- Recommended regulations are backbone of right whale HCP.
- Vetted through ALWTRP's rule making process and NOAA's Relative Risk Decision tool.
- Risk Decision Tool shows that recommendation will achieve 76.3% risk reduction; substantially higher than the 60% risk reduction goal of the new ALWTRP rules.
- Sea turtles will be addressed separately in 2021.

Public Comment

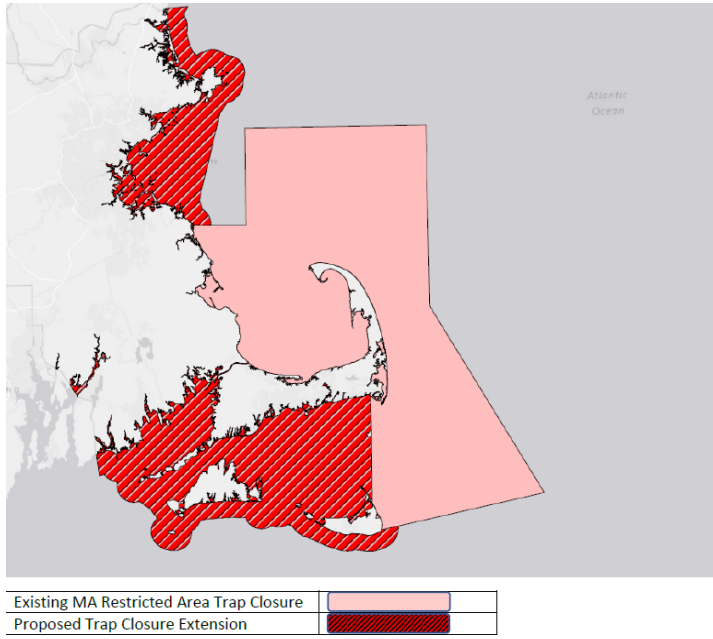
- DMF held public comment period from November 13 – December 18.
- Two virtual public hearings on December 8 and December 9.
- Unprecedented response to proposals.
- 2,000 pages of written comment, including form letters and about 300 unique written comments.
- Both public hearings had about 200 people in attendance.
- Comments focused on:
  - Timing of commercial fixed gear closures;
  - Exempting LCMA2 waters from trap gear closure;
  - Adjusting timing of recreational trap gear closure;
  - Establishing frequency and location for contrivances to be inserted into buoy line to achieve 1,700 lb breaking strength;
  - Continuing to allow single trap fishing in certain waters.
- Much of testimony also addressed issue of “ropeless fishing.” Many requested DMF revamp its proposal to immediately accommodate the use of this gear or develop a pathway to it.
- DMF is researching “ropeless fishing” to address the technological, operational, and financial barriers that presently exist.

Commercial Trap Closure

Proposal:

- Extend the existing February 1 – April 30 MRA closure (north and east of CC) to all waters under the jurisdiction of the Commonwealth.
- Adjust timing of conch pot haul-out period so that it runs from December 15 – April 30 consistent with end of extended closure.
- Retain authority to extend closure if whales remain present into May.

Existing and Proposed Trap Closure



Rationale:

- Significantly reduces risk of entanglement when right whales are known to be in our waters.

Comment:

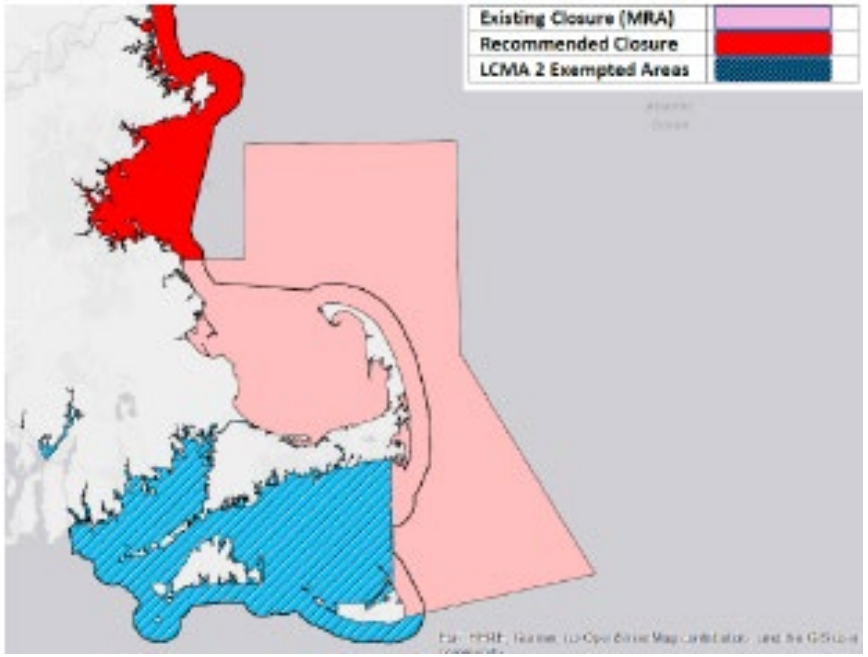
- Negatively impacts trap fisheries south and west of CC where right whales are not observed.
- Does not provide protection to right whales in January when they arrive and in May when they leave.

Commercial Trap Gear Closure

Recommendation:

- Adopt a February 1 – May 15 commercial trap gear closure.
- Have this closure apply to those waters within the existing MRA and those waters under the jurisdiction of the Commonwealth north of 42°12'N.
- Have the closure apply dynamically during the period of May 1 – May 15 so that DMF may lift the closure or portions thereof in response to observations of whales migrating out of our waters.
- Exempt those waters within LCMA 2 (south and west of Cape Cod) from the closure.

Recommended Trap Gear Closure



Recommended Motion

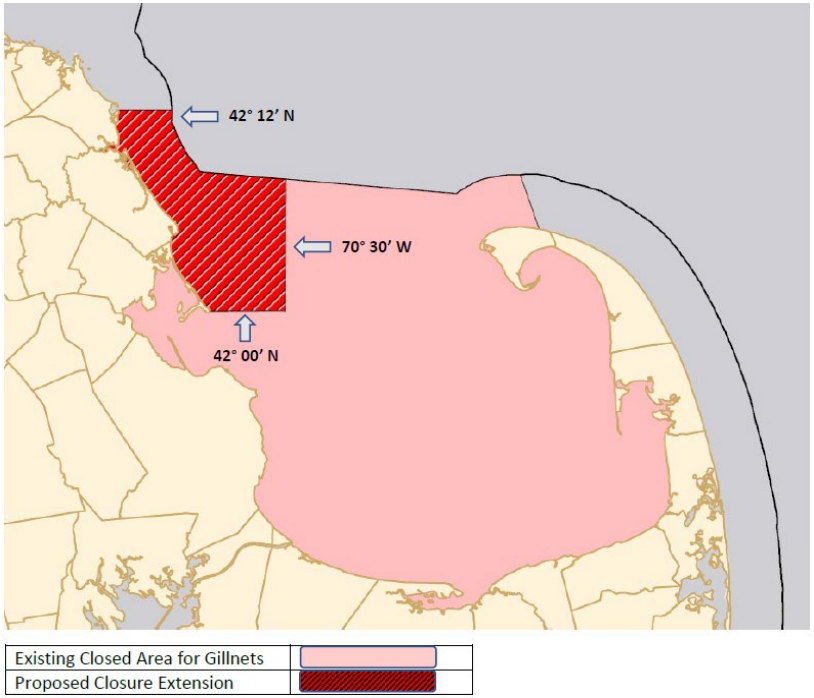
Move to approve February 1 – May 15 commercial trap gear closure for all waters under the jurisdiction of the Commonwealth north and east of Cape Cod within the existing Massachusetts Restricted Area and north of its current boundary at 42°12’ N latitude to the NH border. During the period of May 1 – May 15, allow DMF to lift the closure or a portion thereof based on the presence and absence of right whales.

Commercial Gillnet Closure Extension

Proposal:

- Extend the existing January 15 – May 15 gillnet closure in Cape Cod Bay to include those waters west of 70° 30' west longitude between 42° 00' north latitude (Gurnett Point, Plymouth) and 42° 00' north latitude (Scituate Harbor, Scituate).

Proposed Gillnet Closure



Comment:

- Expand closure to match trap closure.

Rationale:

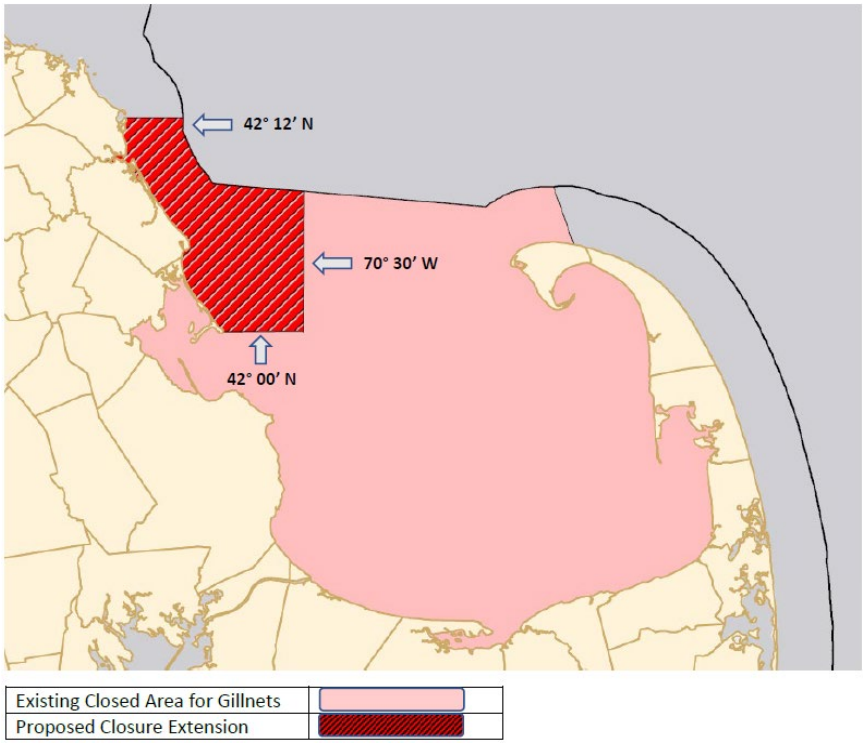
- Extends northern boundary commensurate with current trap gear closure boundary.
- Area is closed seasonally due to existing fishery management closures, but may be incidentally opened in April if DMF lifts conditions groundfish closure.
- Reduces risk of right whales becoming entangled in gillnets by prohibiting the presence of this gear in Commonwealth waters during periods of time when right whales are known to aggregate in and migrate through these waters.

Commercial Gillnet Closure

Recommendation

- Expand the spatial extent of the existing January 1 – May 15 commercial gillnet closure to include that section of water along the south shore between Gurnet Point and Scituate Harbor to the west of 70°30’ W longitude.

Recommended Gillnet Closure



Recommended Motion

Move to approve expanding the existing January 1 – May 15 sink gillnet closure in Cape Cod Bay to include those waters under the jurisdiction of the Commonwealth bounded by 42°00’ N latitude to the south, 42°12’ N latitude to the north, and 70°30’ W longitude to the east.

Recreational Lobster Trap Haul-Out

Proposal:

- Establish a state-wide haul-out period for recreational lobster trap gear from Tuesday following Columbus Day to Saturday before Memorial Day.

Rationale:

- DMF estimates recreational fishery fishes about 17,500 buoy lines (DMF Technical Report) with most effort occurring from May to November.
- Nearly 80% of all lost or abandoned gear removed by DMF-MEP annual efforts is recreational lobster trap gear.
- Provides MEP and DMF with ample time to remove lost or abandoned gear.
- Haul-out encourages fishermen to get gear home before weather turns.

Comments:

- Desire to see additional time in late-fall and spring when recreational trap gear may be fished.
- Interest in not having haul-out period apply south and west of Cape Cod.
- Decrease recreational trap limit.

Recreational Lobster Trap Haul Out

Recommendation:

- Establish a November 1 – May 15 haul-out period for buoyed recreational lobster traps throughout all waters under the jurisdiction of the Commonwealth.
- This will not apply to unbuoyed gear typically fished along the shore of the Cape Cod Canal.

Recommended Motion

Move to approve a November 1 – May 15 buoyed recreational trap haul-out period within all waters under the jurisdiction of the Commonwealth.

Single Trap Prohibition

Proposal:

- Prohibit commercial fishermen using vessels larger than 29' to fish single lobster traps. Proposed effective date is January 1, 2022.
- Does not apply to conch or fish pots.
- Exempt fishermen using vessels less than 29' in single trap exemption area.

Rationale:

- Reduces number of buoy lines at times and in places where right whales may be present.

Comments:

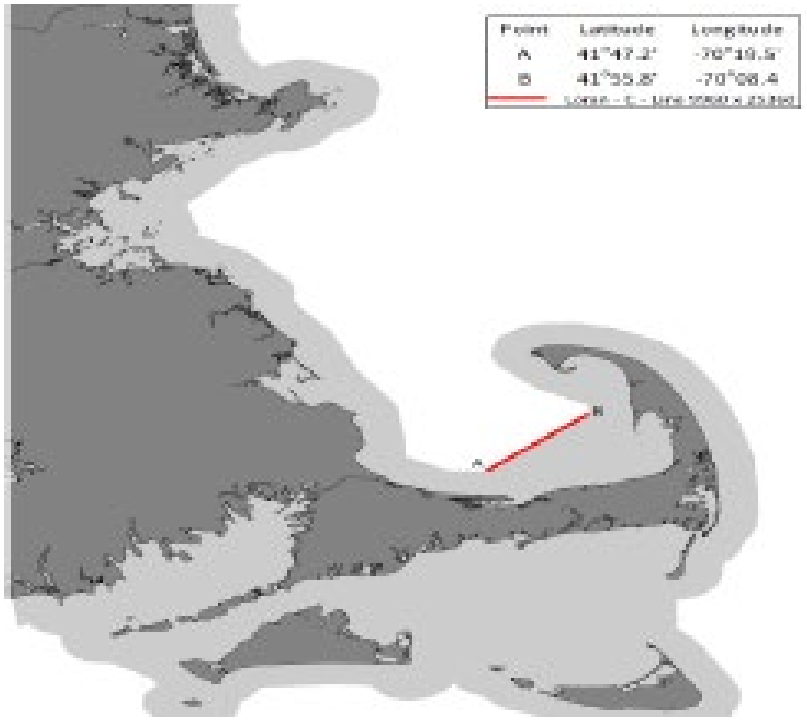
- 29' rule should not apply.
- Would adversely impact how fishery is conducted in certain areas, particularly to OCCLCMA fishermen who fish out of Nauset Inlet.
- Needs to accommodate exemptions for good cause (e.g., disability).

Single Trap Prohibition

Recommendation

- Effective January 1, 2022 prohibit all vessels 29' overall length or larger from fishing single lobster traps any within the waters under the jurisdiction of the Commonwealth.
- Vessels under 29' overall length will continue to be allowed to fish single lobster traps inside the existing single trap exemption area.
- Rule will not apply to any areas where single trap fishing is mandated by statute (i.e., Gosnold).
- DMF intends to work with legislature to rescind Gosnold single trap rule.

Single Trap Exemption Area and Billingsgate Exemption Line



Recommended Motion

Move to approve prohibition of fishing single lobster traps within any waters under the jurisdiction of the Commonwealth when fishing from a vessel with an overall length of 29’ or greater, effective January 1, 2022. Consistent with this, continue to allow the fishing of single lobster traps from vessels with an overall length of less than 29’ feet only within the existing single trap exemption area.

1,700 Pound Breaking Strength Buoy Line

Proposal:

- Require all commercial trap fishermen rig their gear with buoy lines that break when exposed to 1,700 pounds of tension.
- This may be accomplished by fishing a “weak rope” or by fishing a buoy line rigged with contrivances that allow it to break at that tension.

Rationale:

- A 2016 study by Knowlton et al. found that use of ropes with 1,700 or less breaking strength could reduce the severity of entanglement injuries by at least 72%.
- If an entanglement were to occur, it would reduce the harm caused by it. This will reduce the risk of injury or mortality posed by buoyed trap gear.

Comments:

- Need to identify appropriate spacing for contrivances.
- Need to balance frequency of contrivances in buoy line with burden and safety impacts on industry.

1,700 Pound Breaking Strength Buoy Line

Recommendation:

- Effective, May 1, 2021 require all commercial trap fishermen rig their gear with buoy lines that break when exposed to 1,700 pounds of tension.
- This may be accomplished by fishing a “weak rope” or by fishing a buoy line rigged with contrivances that allow it to break at that tension.
- All contrivances must be NOAA approved. At this time, only “South Shore sleeve” has been approved.
- If a contrivance is used, they must occur no less than every 60’ in the top 75% of the buoy line.

South Shore Sleeve

Recommended Motion

Move to approve that effective May 1, 2021 all commercial trap gear shall be rigged with buoy lines that have a 1,700-pound breaking strength. 1,700-pound breaking strength buoy line shall be defined as any buoy line with a breaking strength of 1,700 pounds or less or any buoy line that is rigged with no less than one 1,700-pound contrivance for every 60’ of buoy line in the top 75% of the buoy line. All 1,700-pound contrivances are to be approved by NOAA Fisheries.

Maximum Buoy Line Diameters

Proposal:

- Require all commercial trap fishermen fish buoy lines that do not exceed 3/8" diameter.
- Require all recreational lobster and crab trap fishermen to fish buoy lines that do not exceed 5/16" diameter.

Rationale:

- Lighter diameter rope poses less of a threat of injury and mortality from entanglement. Throughout the Atlantic entanglements in recent years have been in heavier gear.
- Creates a de facto gear marking system that would differentiate Massachusetts trap gear from heavier gear that is commonly fished offshore and in Canada.
- Establishes firm guidelines on buoy line diameter for novice recreational fishermen.

Comment:

- Some recreational fishermen objected to having a more restrictive line requirement.

Maximum Buoy Line Diameters

Recommendation:

- Require all commercial trap fishermen fish buoy lines that do not exceed 3/8” diameter.
- Require all recreational lobster and crab trap fishermen to fish buoy lines that do not exceed 5/16” diameter.

Recommended Motion:

Move to approve a 3/8” maximum buoy line diameter for commercial trap fisheries and a 5/16” maximum buoy line diameter for the recreational lobster and crab trap fishery.

Housekeeping

Proposal:

- Revise and update the purpose of the state's protected species regulations to better reflect current management.
- Consolidate the regulations that govern vessel interactions with right whales into one section.
- Establish a consolidated section of maps relevant to the protected species regulations.
- Consolidate and refine all regulatory language as necessary to improve the clarity and readability of existing regulations.

Rationale:

- Ensures regulations are clear, concise, and up-to-date.
- Better captures current efforts and approaches to managing protected species.
- Updates relevant maps and definitions.

Comments:

- DMF needs to address ropeless fishing either by allowing this gear to be fished or developing a means to better assess its efficacy.

Housekeeping

Recommendation:

- Set aside a “reserved” section titled “Authorization for the Use of Alternative Gear.” This section will later be populated with regulations that describe the process by which entities may be permitted to engage in “ropeless fishing” and how this may occur.
- Revise and update the purpose of the state’s protected species regulations so that it better reflects the DMF’s current approach to managing protected species.
- Consolidate the regulations that govern vessel interactions with right whales into one section.
- Establish a consolidated section of maps relevant to the protected species regulations.
- Consolidate and refine all regulatory language as necessary to improve the clarity and readability of existing regulations.

Recommended Motion:

Move to approve all recommended housekeeping adjustments, as set forth in the strikethrough regulations attached to DMF’s January 22, 2021 “Final Recommendation on Protected Species Regulations Memo” affecting 322 CMR 6.02(2), 6.02(7), 6.12(4), 7.01(2)(f), 12.01, 12.02, 12.03, 12.05, 12.06, 12.07, 12.08 and 12.09.

Seasonal Lobster Permit Cap

Final Permitting Action:

- Cap the annual issuance of seasonal (student) lobster permits at 150.

Rationale:

- Effectively caps effort near current levels.
- Prevent the further proliferation of fishing effort under this permit class and thereby caps the overall number of buoy lines fished by this permit class.
- Continues to allow young persons to gain commercial fishing experience and provide a means for young fishermen to enter the commercial fishery.

Photo credit: www.skifflife.com

Comments

- No objections.

FARRELL SMITH O'CONNELL

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January 27, 2021

Massachusetts Fisheries Advisory Commission
c/o Mr. Jared Silva
Via Email: jared.silva@mass.gov

Re: Final Recommendation on Protected Species Regulation
Proposed Amendments to 322 CMR 6.00, 7.00 and 12.00

Dear Honorable Members of the Massachusetts Fisheries Advisory Commission:

We represent the Massachusetts Lobstermen's Survival Fund (the "Fund"), which is a group of approximately 40-50 Massachusetts commercial lobstermen and stakeholders in the Massachusetts commercial lobster fishery.

On behalf of the Fund, and for the reasons below, we respectfully request that the Marine Fisheries Advisory Commission ("MFAC") deny the Director's Final Recommendations without prejudice at this time and remand consideration of the Final Recommendations for further public comment as a republished proposed rule. The reasons denial without prejudice pending further public comment is warranted at this time is essentially four-fold:

1. **Substantial Deviation from Proposed Rule.** The Final Recommendation deviates substantially from the Proposed Rule in violation of M.G.L. c. 30A, § 2.

2. **Lack of NOAA Guidance.** The Proposed Rule and public comment period preceded the National Oceanic and Atmospheric Administration ("NOAA") proposed rule aimed to ensure the Federal commercial lobster fishery complies with the Marine Mammal Protection Act and the Endangered Species Act ("ESA"), which governs the same standard for issuance of an Incidental Take Permit ("ITP"): the stated reason for Mass DMF's proposed regulatory change. Further, the Final Recommendation needlessly deviates from NOAA's proposed rulemaking.

3. **Insufficient Scientific Evidence.** The Massachusetts Division of Marine Fisheries ("Mass DMF") did not conduct a complete and robust scientific inquiry with respect

to how a statewide closure and how a closure of those Northern Massachusetts waters now consisting of the final recommended Expanded Closure will reduce any takings of right whales in comparison to the status quo.

4. **Lack of an Economic Impact Statement.** Both the Final Recommendation and Proposed Rule lack a sufficient small business economic impact statement in violation of M.G.L. c. 30A, § 2.

All four of the above reasons fall within the scope of one overall problem: the proposed amendments to 322 CMR 6.00, 7.00 and 12.00 were made prematurely in hindsight and without conducting a sufficiently robust scientific and economic analysis with due consideration of NOAA's recently published proposed rule. This is explainable given the circumstances of when and why Mass DMF proposed the foregoing amendments: Mass DMF, as of November-December, 2020, was forced by a Federal Judge to read the tea leaves of what it thought NOAA would find acceptable for issuing an ITP. Now that we have the benefit of NOAA's proposed rule published on December 31, 2020, both the Mass DMF are fully equipped to develop a more narrowly tailored rule, and it makes sense for the public to have the benefit of further comment. This is especially so considering Mass DMF's incomplete scientific and economic inquiry with respect to Massachusetts waters as a whole prior to implementing its Proposed Rule.

Accordingly, the Final Recommendation must be rejected at this time, but without prejudice, to allow the public and Mass DMF to further develop the recent legal and factual issues through a reset of the administrative process. Ultimately, the final recommendations may indeed be enacted into final rule. That cannot be done, however, without first allowing the administrative processes to fully play out in light of the foregoing recent developments intermittent to the public hearings in early December and the Mass DMF's Final Recommendation published only last Friday, January 22, 2021.

1. The Final Recommendation deviates Substantially from the Proposed Rule.

Under both the Massachusetts Administrative Procedure Act, M.G.L. c. 30A, § 2 and Mass DMF's published administrative regulations, 322 CMR 2.06, Mass DMF is required to publish its proposed rule and submit it to the public for comment. The Final Recommendation submitted to the MFAC is not the Proposed Rule that the public commented on in December 2020. The major deviation from the Proposed Rule is that rather than closing all of Massachusetts state waters to commercial trap fishing between February 1 and April 30, Mass DMF now recommends that LCMA2 be exempted from this closure, and that the closure extend to May 15. There are also other deviations (e.g. gear restrictions discussed below) that are very significant.

As the public had no opportunity to comment on these substantial deviations from the Proposed Rule, enacting it into final rulemaking violates the Massachusetts Administrative Procedure Act and Mass DMF's administrative regulations. Remand of the Final Recommendation back to public comment serves the interests of all parties, as the final rule, once enacted, will not be tainted by this legal discrepancy and both stakeholders in the fishery and environmentalists alike will be allowed to genuinely and properly comment on this proposal.

2. The Final Recommendation Does Not (and Could Not) Properly Consider NOAA's December 31, 2020 Proposed Rule and Guidance for an ITP.

The Proposed Rule, as stated in its preamble, is aimed at obtaining an ITP, which is in turn motivated by the United States District Court for the District of Massachusetts entering a Preliminary Injunction requiring Mass DMF to apply for such an ITP. *See Strahan v. Sec'y of MEOEEA et al.,* 458 F.Supp.3d 76 (D. Mass. 2020). The ITP is issued by NOAA and application therefor is currently pending.[1]

There is likewise a parallel lawsuit against NOAA pending in the United States District Court for the District of Columbia, whereby the Judge has ordered NOAA to include an Incidental Take Statement ("ITS") in its biological opinion concerning northern right whales.

As both the ITP and ITS are issued under the same standard whereby NOAA scientists will need to opine that the federal and state plans impact the northern right whale at acceptable levels, NOAA's recent proposed rulemaking published on December 31, 2020 offers an instructive roadmap for Mass DMF in tailoring its regulations to NOAA acceptance and ESA compliance.[2]

As this very material and instructive information was unavailable to both Mass DMF and the public as of November-December 2020, when the published rulemaking and comment period commenced, it makes sense to restart that process whereby all stakeholders and regulators will be properly equipped to enact a final rule that will both guarantee obtaining an ITP while limiting regulatory overreach with respect to the economic and cultural considerations of Massachusetts lobstermen.

Enacting the final recommendations at this time when NOAA's proposed rule is readily accessible for comment and inclusion in the administrative process will be premature and unwise. The viability of the proposed amendments, the pending right whale lawsuits, and the opinion of NOAA scientists as to what restrictions are reasonable and acceptable are all inextricably intertwined and it would behoove the MFAC, while not rejecting the Final Recommendation outright, to remand it for a supplemental public comment period compliant with the Massachusetts Administrative Procedure Act.

A perfect example of how NOAA's proposed rule would have been useful for public discussion is the Director's present and unnecessary proposal for substantially more severe gear restrictions than that recommended by NOAA scientists. As cited in the January 22, 2021 Memorandum, NOAA recommends one weak contrivance break away 50% down the buoy line

[1] This raises interesting (and troubling) legal questions about whether our Federalist system can accommodate a Federal Judge regulating state administration from the bench not addressed in this writing. *See Mass. Lobstermen's Survival Fund Comments dated December 18, 2020.*

[2] We say this without admission or concession that there are any current Mass DMF or NOAA regulations not compliant with the ESA. For practicable purposes, however, we assume without deciding that both of these Court decisions would result in a final injunction affirmed on appeal.

for state waters and two weak contrivances 25% and 50% down the buoy line for federal waters in the 3-12 mile band.

Mass DMF, albeit proposing during hearing and public comment that it does not seek to impose any restrictions beyond those required by the Federal Government, now proposes substantially more restrictive gear requirements than NOAA: break aways every 60 feet of the upper 75% of buoy lines. These restrictions will be impracticable to implement in any timely fashion and they are entirely unnecessary. It has been reported to this office that such contrivances are not even commercially available as of this time.

Further, they do not appear to be narrowly tailored toward conservation and the creation of optimum yield, or even the more artificial and stated concerns of appeasing the ongoing right whale litigation and ITP permit application process. The stated reason for the more aggressive restrictions appears to be limited to Mass DMF wanting to "differentiate ourselves as being more conservative than fisheries in other jurisdictions" and nothing more. Such artificial concerns and appearance do not give rise to legally sound policy. Moreover, and most importantly, there should be no reason to be more conservative than NOAA for purposes of obtaining an ITP when NOAA is the agency that decides whether Massachusetts regulations appropriately protect right whales for purposes of obtaining such an ITP.

The problem is amplified when one looks at the Proposed Rule and its treatment of weak contrivances. The Proposed Rule vaguely states that a 1,700 pound breaking strength "may be accomplished by deploying a buoy line that breaks at this specific breaking strength or by rigging the buoy line with certain approved contrivances," and nothing further. The Proposed Rule did not afford lobstermen the opportunity to even imagine a circumstance whereby several break aways would be required every 60 feet, let alone discussing this un-proposed restriction at hearing. Had lobstermen been properly notified that such excessive, unnecessary, and impracticable restrictions were in the realm of possibilities, coupled with being properly informed about NOAA's proposed rule, then a genuine discussion about why we even need so many weak contrivances could have been appropriately addressed.

Because we now have the benefit of NOAA's proposed rulemaking, we now know that break aways every 60 feet are wholly unnecessary. And if the Director wishes to have more restrictions for mere publicity purposes, commercial lobstermen should at least have an opportunity to say something about it at a public hearing. If MFAC adopts the final recommendations now, then they never will.

In summation, and by example of the break away discussion above, neither Mass DMF nor the public had a well-informed discussion about crafting regulations geared toward obtaining an ITP during the public comment process because NOAA had not theretofore provided clear and unequivocal guidance as to what it is looking for. Because NOAA has recently published this clear guidance through its proposed rulemaking, the Proposed Rule is ripe for further discussion and MFAC should properly table any decision to enact the Final Recommendation pending those further discussions.

3. The Recommended Extended Closure of areas North of Cape Cod Bay is Internally Inconsistent and not Supported by adequate Scientific Inquiry.

Many of the Fund's members fish on the North Shore of Massachusetts and out of Cape Ann in areas that are outside and north of the existing Large Whale Trap/Pot Gear Closure Area (the "Existing Closed Area"). That area consists of the "Recommended Closure" area, as indicated in the Director's January 22, 2021 Memorandum:

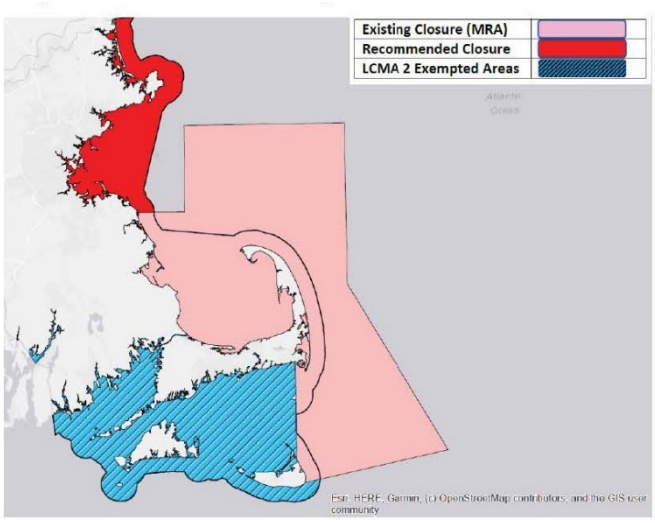

Fig. 1.1: Map of proposed closures/exemptions.

As the Director and the Mass DMF has already conceded, there has never been a known entanglement that has ever been sourced to Massachusetts lobster gear in the Recommended Closure north of the Existing Closure. The Recommended Closure is not an area where right whales are known to aggregate and it is likewise not a location where their food source is in abundance, whether before or after any perceived climatic change.

The Director has recommended that the MFAC adopt a final rule that exempts areas south and west of Cape Cod in LCMA 2 from a state-wide closure. The rationale for exempting this area of the Commonwealth is the notion that this is not an area where right whales are known to aggregate and that no known entanglement has ever been sourced to LCMA 2 gear. While we agree with this explanation and exemption, it does not explain or justify why there is a recommended closure north of Cape Cod Bay, which likewise has no evidence of any whale congregation or entanglements.[3]

After receiving comments on the Proposed Rule in early December 2020, Mass DMF requested NOAA fisheries to evaluate the relative risk posed by allowing trap gear to be fished in

[3] While we agree with and wholly support the LCMA2 exemption in principle, we must note that Mass DMF has previously recommended to NOAA a Federal Area 2 closure south of Nantucket, basically an extension of a LCMA2 closure, where there is some overlap. 85 Fed. Reg. 86793, 86884 (Dec. 31, 2020). Exempting LCMA2 may frustrate NOAA's targeted 60% risk reduction, as the overlapping state closure may have been considered in the proposed federal rule. As the Federal and State regulations in this regard are inextricably intertwined with right whale issues, opening this area may actually frustrate the ITP process.

LCMA 2 during February 1 through May 15 based on SAFIS data and co-occurrence models. While we agree that this is one of many of the types of studies that should be conducted, we find the timing and geographical limitations of this study very troubling, because this is such a study that Mass DMF should have conducted *prior to publishing the Proposed Rule in November 2020* with respect to *all of Massachusetts' waters*. If Mass DMF is going to propose closing all of Massachusetts waters to commercial lobster fishing, indeed, then it should at a minimum conduct what appears to be a minimal statistical inquiry based on available data to determine whether such drastic closures are scientifically appropriate for all regions.

As we commented previously on December 18, 2020, it appears that the extended closure of Massachusetts waters to trap gear fishing is not based on actual studies and scientific evidence, but more on publicity and appeasement in light of the ongoing litigation. The facts Mass DMF commissioned its study only after the public comment period had concluded and that its limited study with respect to LCMA2 showed no significant increase to harming right whales, suggests the state-wide closure had no scientific backing from the outset and was entirely political.

We of course have no scientific comparison or study as of this time to evaluate exactly how harmful allowing the status quo to continue (maintaining only the baseline Existing Closure) will be versus both (1) the total closure initially offered in the Proposed Rule, and (2) the modified extended closure of Northern Massachusetts waters now offered in the Final Recommendation. We do not have this data for review because it appears that Mass DMF never commissioned these studies. If we had both of these comparisons available, then the public and Mass DMF would be able to comment and determine whether either of these options are necessary.

We believe that such studies, if conducted, would reveal equally if not more favorable results than that conducted with respect to LCMA2. Further, the absence of such studies suggests a lack of due diligence and an internally inconsistent regulation. In essence, Mass DMF initially proposed closing the fishery statewide without any statistical or scientific support. Only after receiving public comment did Mass DMF decide to conduct a study with respect to LCMA2. A comprehensive, state-wide, study should have been conducted initially before proposing these very draconian restrictions and the fact that they were not, and the fact that Mass DMF failed to cure this dereliction with the exception of LCMA2, shows a lack of scientific basis for both its Proposed Rule and Final Recommendation. Such an internal inconsistency and lack of diligence is *prima facie* evidence that the Mass DMF is not basing the proposed final recommendations on the best scientific data available for the protection of right whales and is arbitrarily and capriciously closing innocuous areas of Massachusetts waters for appearance only.

The arbitrary nature of the northern closure is further confirmed in Mass DMF's proposing gillnetting to be conducted in these areas while lobstering is closed. Gillnets, per NOAA data, is over three times as likely to result in a whale entanglement than U.S. trap/pot gear:

Cause	Percent
U.S. and Canadian vessel strikes	48%
Canadian Snow Crab Fishery	31%
Gillnet and netting gear	13%
Unknown trap/pot gear	4%
U.S. trap/pot gear	4%

Fig. 2.1 NOAA Estimated Percentage of Human Contribution to Whale Mortality/Significant Injury, per Maine Lobstermen's Association.

The Director's justification for allowing gillnetting in the Recommended Closure is "that right whales do not appear in Massachusetts Bay in the same numbers and densities that they do in Cape Cod Bay," but this would be even more grounds to allow lobstering in these areas based on the lack of any evidence of entanglements in this region and on the sheer fact that gillnetting poses a far greater risk to right whales.

The other explanation the Director provides is that there are substantially less gillnetters than lobstermen, but this is not adequate justification. Despite there being substantially less gillnetters, indeed, gillnetters represent the majority of potential U.S. entanglements to right whales. Further, and as the DMF knows, most lobstermen from the North Shore who hold federal permits do not fish within state waters between February and May, yet this similar consideration has not been afforded to them. Mass DMF, to be sure, has declined to conduct any study as to the actual impact of those Massachusetts lobstermen who fish exclusively in Northern Massachusetts state waters between February and May.

Accordingly, the Final Recommendation cannot be adopted at this time because Mass DMF has not completed (or at least has not displayed) its homework. Massachusetts lobstermen deserve a better explanation before Mass DMF closes entire geographical areas of the fishery. While we applaud exempting LCMA2 from the extended closure based on the proven data that doing so will have a de minimis impact on right whales, Mass DMF has not provided any evidence that it has afforded North Shore lobstermen the same robust statistical evaluation that would justify or preclude an extended closure. The fact that such information was not provided to the public prior to the public hearings is unconscionable, and what adds further insult to injury is that Mass DMF failed to conduct a statewide and comprehensive study while limiting *ad hoc* similar inquiry to a cherry picked region. For these reasons, the MFAC should remand the Final Recommendation to the agency pending completion of similar statistical analyses statewide that it provided for LCMA2.

4. Both the Proposed Rule and the Final Recommendation lack a Small Business Economic Impact Statement.

As probably all of you know, coastal commercial lobstering is conducted exclusively by U.S. small businesses. It is probably one of the last areas of our economy that has not been swallowed up by large corporations. These small family owned businesses will most certainly be affected economically by the Final Recommendation, but neither the Proposed Rule nor the

Final Recommendation contain a small business economic impact statement as required by M.G.L. c. 30A, § 2.

It appears that Mass DMF's economic review of its proposed regulations is incomplete and/or nonexistent. It certainly does not satisfy the legal requirement of an economic impact statement under the Massachusetts Administrative Procedure Act. Such an economic impact statement must address those lobstermen within the specific regions the Mass DMF proposes to newly close. While we lack economic expertise in this area, we note that Gloucester, Massachusetts, which presently sits within the proposed Expanded Closure, lands the most commercial lobster product within the Commonwealth. The fact no economic analysis or study has been conducted as to how this will affect this very important aspect of the Massachusetts economy is more than just a disservice to the community, it means that the regulation, on its face, will not survive a legal challenge per black letter administrative law.

Accordingly, and to allow for the proposed rule to survive a legal challenge if enacted, the MFAC should remand the Final Recommendation to a further public comment period prior to its enactment.

CONCLUSION

In conclusion, and in addition to those comments we submitted on December 18, 2020, the Final Recommendations are internally inconsistent and not only lack supporting scientific evidence, but do not follow the appropriate law and procedure. Further, and as a practical matter, it makes sense to table a decision on the Final Recommendation in light of the recent factual developments with NOAA and the substantial deviations with the Proposed Rule. It is only fair to the commercial fishing community that participants thereof are fully equipped to comment and fully know what the Mass DMF is actually proposing prior to the public hearing.

Thank you for your time and attention in this matter.

Very truly yours,

Olaf Aprans

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MEMORANDUM

TO: Marine Fisheries Advisory Commission (MFAC)

FROM: Daniel J. McKiernan, Director

DATE: January 22, 2021

SUBJECT: **Ropeless Fishing and the Opportunities and Challenges to Reduce Entanglement Risk**

Background

For as long as lobster traps have been set in the ocean—dating back to at least the 1800s—fishermen have deployed vertical buoy lines to allow the owner to retrieve the gear and to mark the presence of the gear. Surface markings allow other fishermen to avoid setting other fixed gear on top of the marked traps or dragging mobile gear over and through the marked traps. However, given the current status of the North Atlantic right whale (right whale) —and the fact that these whales may be harmed or killed by entanglements with vertical buoy lines—there is a movement among technologists, conservation advocates, and some NGOs to require that fishermen move away from this traditional fishing method.

These individuals advocate for "ropeless" fishing. This refers to the deployment of on-demand fixed fishing gears that do not rely on vertical buoy lines and surface buoys to mark the gear presence and then allow the hauling of the gear and the catch from the ocean floor to the vessel. Most on-demand systems feature a buoy and line that is bundled at the trap and released to the surface by a remote device operated by the fisherman, thus allowing the gear to be hauled normally. Another design in the works uses compressed air tanks and an air bag that can be triggered from the vessel to bring the fishing gear to the surface.

DMF recently proposed a series of protected species regulations affecting fixed gear fishing and right whale conservation. In response, the agency received in excess of 2,000 pages of written comments and held two well attended virtual public hearings. While many of the unique comments received focused on the pros and cons of the proposed regulatory measures, the majority of the comments addressed an issue that was not among the proposed actions: the development of ropeless fishing.

Many of these comments pressed DMF to devise regulations to accommodate ropeless fishing. These comments were typically not from our usual stakeholders but instead were made by concerned citizens who have been convinced that ropeless fishing is the best solution to solving the entanglement dilemma. This included organized campaigns by groups that focus on conservation and animal welfare. Thousands of letters urged DMF to create a "pathway for permitting ropeless fishing gear," citing the use of ropeless systems in "Australia, United Kingdom, Ireland, Canada and the West Coast." These form letters simultaneously asked that regulations requiring vertical lines, "be revised entirely, in order for ropeless fishing to become legal in Massachusetts" and that DMF "implement measures that incorporate ropeless gear pilot programs in order to save the right whale."

Given the public interest in this topic, I am providing you with this memorandum as a supplement to my recommendation on the protected species regulations. This memorandum serves to provide the MFAC with an update on ropeless fishing, as well as DMF's ongoing activities to investigate its potential and initiatives to develop the technology for state waters fisheries. While DMF's regulatory amendments proposed for final adoption address ropeless fishing only insofar as setting aside a section to establish regulations in the near future that will allow for experimentation with ropeless gear, DMF has and will continue to dedicate substantial resources to this issue. In summary, DMF has permitted some experimental development of on-demand buoy systems by gear researchers in the past two years; DMF has participated in the Ropeless Consortium meetings; and DMF has sought and been awarded a federal grant to examine the potential for ropeless fishing for New England's fixed gear fisheries. DMF is also working closely with NOAA Fisheries to develop uniform permitting conditions for ropeless fishing—a critical step given that NOAA Fisheries is on the verge of amending its fixed gear closure regulations to allow gears without "persistent buoy lines" in areas that would otherwise be closed to lobster trap fishing altogether.

The State of Ropeless Fishing Research and Public Perception

There is a formal group working on this initiative called the Ropeless Consortium (Consortium), based in Woods Hole, MA. It is led by Dr. Mark Baumgartner, a renowned right whale researcher whose past work included habitat monitoring for right whales using bioacoustics and in-depth plankton studies to reveal habitat utilization by right whales. I recommend the MFAC become familiar with the work of the Consortium because the transition to ropeless fishing would be a profound change for not just the lobster fishery, but all fixed and mobile gear fisheries that share the ocean, and the Consortium's work would be at the center of such a transition.

The Consortium's website appropriately notes that "*(t)o develop a rope-less fishery, however, many practical aspects need to be considered*." Moreover, their long-term vision recognizes the primary challenges include the need to detect the presence of the ropeless gear on the ocean floor. The most promising solution involves potential acoustic signaling devices on the end traps along with vessel-based signal receivers. The Consortium's vision of a ropeless future includes the establishment of a master database where all gear locations are stored together and regularly updated. This level of technology is analogous to the geo-spatial positioning features of our smartphones but would instead be specific to fixed gear in the region. Moreover, the Consortium is also researching how to extend this technology to all vessels fishing in the area (mobile and fixed gear) so that they are outfitted with receivers that can detect the devices on the ocean floor and then have these data get incorporated into the master database. Needless to say, there is much work to be done before ropeless fishing could serve as a widespread substitute for traditional gear marking through buoys on the Atlantic coast, where multiple fisheries operate in the same time and space.

While public perception may be that ropeless fishing *is* an alternative that *can* provide conservation benefits to the right whale today, the truth is that ropeless fishing *may become* an alternative that *could* help provide conservation benefits to the right whale in the future. Conservation measures that can have an immediate impact have been incorporated into our recommended final regulations. That said, DMF remains committed to fostering research and development of ropeless technology and gear marking systems in the hopes that the technological, operational, and financial barriers to ropeless fishing that presently exist can be overcome.

DMF's Permitting of Past Ropeless Research

State and federal regulations require the setting of vertical buoy lines at each end of a string of traps or on each individually set "single trap". This matches the traditional way of fishing, allows for the presence of gear to be adequately marked to avoid gear conflicts, and provides an accessible buoy line for inspection

of the gear by law enforcement officers. As fishing without a buoy line and surface markers is unlawful in both state and federal waters, authorizations are required to test or deploy ropeless gear. Given that the gear is strictly experimental, DMF has issued a Letter of Authorization (LOA), under the authority of M.G.L. c. 130, § 80 and 322 CMR 7.01(7), to condition commercial fishing permits allowing the experimental gear research to be conducted by the authorized fishermen and collaborating researchers. (Attachment A)

Thus far, the research in Massachusetts waters has focused on "proof of concept" of on-demand retrieval systems. Efforts have occurred in Cape Cod Bay during the summer months, as it is a time when and place where fixed gear fishing is allowed. The buoy retrieval systems tested have been deployed on one end of a trawl with the other end marked as normal with a routine buoy line. Moreover, the tests have occurred only in favorable weather and sea conditions.

These research projects have been funded by NOAA Fisheries and a local NGO—the International Fund for Animal Welfare. Local fishermen and gear technologists—as well as their counterparts around the globe—have demonstrated that fishing gear can for the most part reliably be brought to the surface through an on-demand retrieval system. This part of the solution is relatively easy to achieve as a purely technological matter. This is unsurprising, as oceanographers and other marine scientists have been placing very expensive scientific equipment on the ocean floor and retrieving it using expensive on-demand retrieval systems for decades. It is not coincidental that the Consortium is located at Woods Hole Oceanographic Institute, as they have the most experience with these systems in the marine environment.

Fishermen and gear technologists who have considered on-demand retrieval systems as a future solution have identified additional challenges beyond retrieval that must be addressed before this type of gear can be universally adopted. In summary, the current cost of the devices is prohibitive for fishermen. Even more challenging, however, is fishermen and law enforcement do not have the ability to detect the presence of the gear on the ocean floor with sufficient resolution in the absence of buoys at the surface. In fact, the Consortium recently established a research fund to specifically address this issue as they have pointed out, "*(t)he development of mechanisms to physically retrieve fishing gear from the sea floor without the use of buoy lines is progressing rapidly, yet complementary methods to locate this 'buoyless' (or 'ropeless') gear have lagged.*"

Without knowledge of the presence of the gear on the ocean floor, it is unavoidable that fishermen will set over the gear. This can cause damage to the gear, or worse jeopardize the safety of the crew. For example, a scallop boat towing a dredge could tow through a string of lobster traps. This will likely cause extensive damage to the trawl and the drag, and if the scallop vessel becomes "hung up" on the gear it puts the vessel at risk of capsizing. Moreover, trap fishermen currently avoid setting their strings of traps over one another's by using the visual cues that the buoy provides. Without this visual cue, lobster traps set on top of another's traps could create dangerous tangles that put trap fishermen and crew at risk when hauling back.

DMF's Grant to Assess Ropeless Fishing's Potential

My staff and I have been proactive on these issues by seeking and being awarded a grant by the National Fish and Wildlife Foundation (NFWF) to study the technological, operational, and economic challenges associated with ropeless fishing gear in New England (Attachment B). The work has begun and is expected to be completed later this year. The project will engage directly with fishing industry members from multiple fisheries including mobile gear and fixed gear sectors. Fishermen based in Massachusetts, New Hampshire, and Maine operating in state and federal waters will be contacted and interviewed about their fishing practices and potential for successfully modifying their gear and fishing techniques using this novel gear. In addition, the project includes direct engagement with non-fishing industry participants including staff of fishermen's organizations, gear manufacturers, fishery managers, law enforcement

officials, and private/public sector experts in telecommunications and spatial database management. This project will identify the data and technical requirements of widespread deployment of on-demand fishing gear technologies and recommend next steps for overcoming technological obstacles.

The project will focus on the fixed gear fisheries in New England that might use on-demand fishing gear, as well as the fixed and mobile gear fisheries that might interact with the unbuoyed gear. Fishery participants are expected to contribute to the discussions from the following fisheries: lobster trap, whelk and fish trap, scallop dredge, surf clam, and bottom otter trawl fisheries operating in state and federal waters off the coast of New England. This project will produce a report summarizing these challenges, opportunities, and requirements, while generating a set of research priorities and recommendations for further evaluation. DMF was chosen for this grant because of our past successes with collaborative research with programs with the fishing industry.

Development of this new fishing method will require careful planning, substantial investment, and amendments to laws at both the state and federal level. For now, we will continue to work with the concept of ropeless fishing through experimental fishing programs.

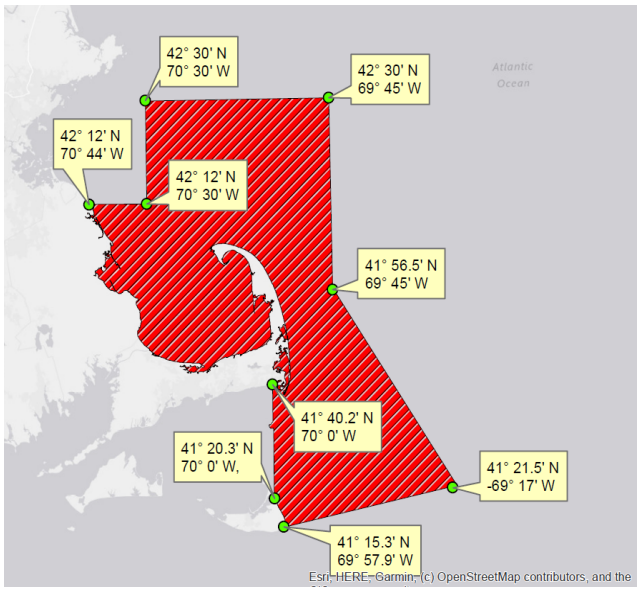
Co-management of Exempted or Experimental Ropeless Fishing
To more expediently authorize experimental ropeless fishing, there are some legal and jurisdictional challenges that need to be resolved at both the state and federal level. To this end, DMF is working closely with NOAA Fisheries.

NOAA Fisheries has proposed a new federal rule that will allow trap fishing without "persistent buoy lines." If approved, it would transform the seasonal federal closed areas from absolute closures to the presence of trap gear to closures only to persistent buoy lines. This change would allow for ropeless fishing to occur in these closed areas, likely through the issuance of a federal Exempted Fishing Permit (EFP). Moreover, there is a companion federal rule concerning ropeless fishing in trap gear closure areas that NOAA Fisheries has not yet finalized, and was first brought to the public's attention about two years ago through an advanced notice of proposed rulemaking (Federal Register). DMF anticipates that NOAA Fisheries will finalize rule making on these issues in early-to-mid 2021. Accordingly, DMF is collaborating with NOAA Fisheries to develop consistent cross-jurisdictional guidelines for vessel owners to apply for and receive a federal EFP and/or a state LOA to deploy experimental ropeless trap gear.

In the interim, DMF and NOAA Fisheries have received informal proposals from a few lobstermen who are identified as "pioneers" in testing ropeless systems. These fishermen hope to be able to use the devices donated by a government agency or an NGO to continue testing of ropeless gear in 2021, and thereby avoid the economic impact of the current Massachusetts Restricted Area (MRA) trap gear closure (Figure 1). We have been advised by NOAA Fisheries that under current federal regulations they are unable to accommodate such requests for fishing in areas closed to trap gear this year; allowances may be authorized in the future contingent on the completion of the federal rule making processes described above. Therefore, even if DMF wanted to grant permission for these fishermen to deploy ropeless systems in the state-waters portion of MRA this year, NOAA's authority under the Marine Mammal Protection Act (MMPA) supersedes our authority regarding this closure, thus making the any decision by DMF moot. Accordingly, any ropeless systems testing this upcoming season, if approved by NOAA Fisheries or DMF, must be done in the waters that are not closed to trap gear by federal MMPA regulations. For example, if the MFAC approves DMF's recommendation to close additional state waters beyond the federal closures to trap fishing, these waters could be used to test ropeless systems because federal MMPA regulations will not apply there.

If DMF were to allow this experimental fishing to occur in an area otherwise closed to trap gear, it would also be prudent to ensure this area is similarly closed to mobile fishing gear or mobile fishing gear does

Fig. 1 – Massachusetts Restricted Area



not occur in the area because it presents unfishable bottom (e.g., bounders, ledge). This will prevent potential gear conflicts and fisherman safety issues that may arise if this gear fished through unbuoyed and undetectable traps or multi-trap trawls. This also underscores the need for NOAA Fisheries and DMF to address challenges of ropeless gear detectability during the permitting process.

Additionally, the balance of liability issues may be altered by ropeless fishing. Under a longstanding state law, G.L. c. 130, §31[1], it is unlawful for any person to damage another's fixed fishing gear. Case law has established that mobile gear fishermen who damage lobster gear by towing a net or dredge through it are liable for the damage to that lobster gear. Using ropeless gear without closing the area to mobile gear fishing makes it more likely that gear conflicts will occur because competing fishermen would be unable to detect the presence of unmarked gear. Can the inability to "see" the gear be a defense? This conundrum represents additional regulatory and legal challenges that should be addressed.

Role of the MFAC in Ropeless Fishing Development and Permitting

Because the marine fisheries' laws and regulations are longstanding and require vertical buoy lines, any permanent changes would require amendments to regulations and possibly statutes. Accordingly, the MFAC must be included in future deliberations on ropeless fishing. G.L. c. 130, §2 provides that the MFAC shall, "make recommendations to the Director for the proper management and development of the marine fisheries of the Commonwealth" and G.L. c. 130, §17A establishes that the MFAC is to approve all DMF's rules governing the manner of taking fish, as well as size limits, seasons and hours, numbers and quantities and the opening and closing of areas. Therefore, addressing the development of ropeless fishing is uniquely in the MFAC's "wheelhouse", as it will require DMF to consider substantial changes in fisheries management, regulate how gear may be fished, and allow or preclude the use of certain fishing gears in certain areas and at certain times.

Historically, the MFAC has not objected to me or past Directors allowing many kinds of experimental fishing "pilot programs" authorized by LOA, especially when there are no or minimal negative consequences on other fisheries or other users. In these cases, the Director weighs the benefits of the pilot program and reports to the MFAC the intent and developments of the program; the legal authority is accomplished through the Director's ability to create permit conditions. Because of the potential profound impacts that ropeless gear could have on the co-existence of fixed gear fishermen among themselves and with competing mobile gear, the MFAC and the public should play a robust role in vetting any future proposals that will authorize ropeless fishing. While I will admit we are in uncharted waters on these matters, I am convinced that a more formal and thorough public process is warranted when considering applications for LOAs to engage in ropeless fishing.

[1] Section 31. No person shall, without the consent of the owner, take, use, destroy, injure or molest a weir, pound net, fish trap, seine, set net or lobster or crab pot or other fishing gear, or a fish car or other contrivance used for the purpose of storing fish, including any such fishing gear which is swept ashore by storm or tide or other natural causes and deposited upon the shore, beaches or flats, whether public or private, or take fish therefrom.

As stated previously, DMF is collaborating with NOAA Fisheries regarding the criteria for reviewing and approving experimental ropeless gear proposals. The federal proposed rule states that all applications for exempted fishing permits (ropeless) will be subject to National Environmental Policy Act review. I will routinely report back to the MFAC on a regular basis about our ongoing collaborative work on this subject. At this time though, I predict we will need to create state regulations governing applications for ropeless fishing similar to that seen in California.

Seeking a Model for Ropeless Fishing Regulations? See California

The state of California faced an analogous situation with its Dungeness crab fishery, as entanglements of endangered species and litigation forced the state and industry to reduce takes through amendments to the management plan. California created a Fishing Gear Working Group comprised of commercial and recreational fishermen, as well as conservation groups and government representatives. As part of the litigation's settlement agreement, California took action to establish a seasonal closure at times when and in places where whales and turtles were more likely to be present and therefore entanglements were more likely. It should be noted that the closed season occurred during the spring and summer months when the fishery is less productive. Then, in fall of 2020, California DFG promulgated formal regulations allowing "alternative gear" to be fished during the closed season. Alternative gear was defined to include ropeless gear. This action was groundbreaking, and much can be learned from the California experience, particularly as the same ropeless device manufacturers and technologies being tested on the Atlantic coast are being tested in California.

In California, applications for fishing the alternative gear during the closed period are to be submitted to CA DFG for their approval. Standards as defined in the regulations can be seen below:

1. *Detectability: detectability by the department, fishermen and public, including description how location of Alternative Gear is available visually or virtually, equipment specifications including costs, and any required specialized equipment or training to deploy, operate, or detect the gear. If "ropeless," the gear must be used with software that enables department law enforcement and other fishing vessels within ¼ mile of the gear to identify the location of the gear at all times when it is deployed.*

2. *Retrievability: means of retrieval, including description of release mechanism, equipment and any specialized training needed to deploy and/or retrieve Alternative Gear, description of safeguards and procedures to minimize gear loss and ghost gear, with gear loss rates of no more than 10%. Gear must include a back-up release capability so it will surface in the event of an equipment failure and must include a gear recovery plan if the gear does not rise to the surface.*

3. *Ability to Identify: means of Alternative Gear identification, including the method or description of the mechanism required for the department to identify Alternative Gear to permitholder both remotely when submerged, and at the surface.*

4. *Benefit: evidence Alternative Gear reduces risk or severity of entanglement.*

5. *Enforceability: including means by which department law enforcement can find and retrieve the Alternative Gear at sea and costs of any necessary equipment and/or training. Department law enforcement must be able to retrieve and redeploy the gear.*

Conclusion

In conclusion there is significant work to be done to develop these technologies here in Massachusetts and New England and much can be learned from the California experiences.

Attachments

A. June 23, 2020 LOA to Experiment with Ropeless Lobster Gear in Massachusetts Waters
B. January 21, 2021 DMF Advisory Announcing Ropeless Fishing Gear Feasibility Study

The Commonwealth of Massachusetts
Division of Marine Fisheries
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LETTER OF AUTHORIZATION
To Experiment with Ropeless Lobster Gear in Massachusetts Waters

June 23, 2020

Eric Matzen
NOAA NEFSC
166 Water St
Woods Hole, MA 02543

Vessels:

Peter Mason	Robert Martin	Michael Lane	John Haviland
16 Dorothy Rd	392 RT 6A	280 Gannett Rd	Beach St
Plymouth, MA 02360	Sandwich, MA 02537	Scituate, MA 02066	Green Harbor, MA 02041
F/V Kestrel	F/V Resolve	F/V Time Machine	F/V Emily Rose
Doc # 947399	Doc # 680154	Doc # 604547	Doc # 955822
Permit ID# 002543	Permit ID# 039670	Permit ID# 000126	Permit ID# 000598

This Letter of Authorization, issued pursuant to the authority at M.G.L. c. 130 § 80 and 322 CMR 7.01(7), hereby conditions the commercial fishing permits with Permit ID # 002543 (F/V Kestrel, Documentation # 947399), Permit ID # 039670 (F/V Resolve, Vessel Documentation #680154), Permit ID # 000126 (F/V Time Machine, Vessel Documentation # 604547), and Permit ID # 000598 (F/V Emily Rose, Vessel Documentation # 955822) to exempt them from trap gear marking requirements, set in accordance with 322 CMR 4.13, provided that the vessels deploy non-conforming lobster trap gear with the following configurations and fishing practices:

- Lobster trap trawls will be set with one compliant buoy line, compliant traps, and one ropeless system instead of the second compliant buoy line.
- The gear will be fished in locations chosen by the fishermen in Massachusetts Waters South of Harding Ledge and within the Cape Cod Bay

This authorization expires January 31, 2020 unless sooner revoked for cause.

Daniel J. McKiernan, *Director*

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CHARLES D. BAKER, Governor | KARYN E. POLITO, Lt. Governor | KATHLEEN A. THEOHARIDES, Secretary | RONALD S. AMIDON, Commissioner | DANIEL J. MCKIERNAN, Director

January 21, 2021
MarineFisheries Advisory

Massachusetts Launches 'Ropeless' Fishing Gear Feasibility Study

Twelve-month project will evaluate fishing, legal, regulatory, technological challenges and opportunities of alternative lobster gear, which could reduce whale entanglements

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The Massachusetts Division of Marine Fisheries (DMF) has launched a comprehensive scoping project to assess 'ropeless' fishing gear in the New England lobster fishery. A first of its kind on an accelerated timeline, the project will interview dozens of fishermen, technologists, policy experts, and scientists to fully evaluate the challenges and opportunities of the new gear type. The project is funded in part by the National Fish and Wildlife Foundation in partnership with the National Oceanic and Atmospheric Administration (NOAA), the federal agency that manages our nation's fisheries in federal waters.

'Ropeless' gear is a type of fishing gear that uses high-tech alternatives to the traditional buoy line equipment used in lobster, crab , and fish pots, and some groundfish fisheries. Most types of ropeless gear are designed to prevent entanglements with marine mammals including North Atlantic right whales using submerged buoys activated by time-release mechanisms or signals transmitted from the surface. While the body of prior research on ropeless gear has focused on the mitigation of risk to endangered marine life, there is still much to learn about the technological, legal, and regulatory ecosystems of ropeless gear as well as operational and economic unknowns for the region's fishermen and coastal communities. DMF's project will build our knowledge on each of these issues and produce a set of recommendations for future policy development and possible implementation.

"Ropeless gear represents a sea change for the fishermen who would use it or interact with it on the fishing grounds," said Daniel McKiernan, director of the Massachusetts Division of Marine Fisheries. "As with any proposed experimental fishing gear type, ropeless gear warrants a thorough analysis, and the urgency of this important conservation and economic issue is motivating our agency to act quickly. Our project will close the loop on the subject by analyzing previously unaddressed opportunities, challenges, and requirements for the use of ropeless fishing gear, while taking the feedback of fishermen, conservationists, and all stakeholders seriously. This project puts the Commonwealth of Massachusetts in a central leadership role advancing marine mammal conservation and fisheries management in an intelligent, equitable, and collaborative manner."

For more details about this project please click here (https://www.mass.gov/service-details/ropeless-fishing-gear-feasibility-study) or send an email to ropelessproject@mass.gov.

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MEMORANDUM

TO: Marine Fisheries Advisory Commission (MFAC)

FROM: Daniel J. McKiernan, Director

DATE: January 22, 2021

SUBJECT: Proposed Adjustments to Commercial Striped Bass Limits

Proposal Overview

In 2020, for the third year in a row, the Massachusetts commercial striped bass fishery fell short of landing its annual allowable quota, with the fishery only landing 386,405 pounds of the 735,240-pound quota (52.6%). There were likely several factors that contributed to the lower 2020 landings including: a decrease in participation by nearly 50%; COVID-19 impacts on markets, access, and fishing effort; existing management measures, such as already restrictive commercial fishing limits, increasing the minimum size from 34" to 35", and closing the Cape Cod Canal to commercial striped bass fishing; and environmental and biological factors that led to a lack of commercial-size fish in state-waters.

The MFAC Striped Bass Subcommittee convened on December 21, 2020 to discuss short and long-term management options in the commercial striped bass fishery. There was general consensus that short-term (2021) changes should be considered to provide more access to the commercial quota. Based on this discussion, DMF is proposing a series of adjustments to the commercial striped bass rules for 2021. These proposals are enumerated below and DMF expects to hold public hearings on these items during the late-winter or early-spring period for potential final implementation for this season. This includes:

1. Move the start of the commercial striped bass fishery from June 23 to as early as June 1.
2. Add two additional open fishing days (Tuesdays and Thursdays) at the start of the season to allow fishing on four consecutive days per week (Monday-Thursday).
3. If the fishery is still open on September 15, open the fishery up five days per week (Monday – Friday). If the fishery is still open on October 1, open the fishery up seven days per week.
4. If the quota has not been caught by November 1, close the fishery for the year.

Background

The ASMFC allocates Massachusetts an annual state-wide commercial quota based on the specifications set forth in the FMP. Massachusetts then manages its annual commercial quota

through a series of controls, including an open season, open commercial fishing days, daily trip limits, and a minimum size. The state's current limits are described in Table 1.

Table 1. 2020 Commercial Striped Bass Limits

Permit Type	Season	Open Days	Trip Limit	Min Size
Vessel-Based	June 23 - Quota	Mondays & Wednesdays*	15 fish**	35"
Other	June 23 - Quota	Mondays & Wednesdays*	2 fish	35"

* If scheduled open fishing days fall on the 3rd of July, the 4th of July or the Monday of Labor Day the commercial fishery is closed. This was implemented in 2018 to reduce user group conflicts and congestion at local boat ramps

** Dual commercial and for-hire permit holders taking charters on open commercial fishing days were required to comply with all recreational fishing limits (1 fish per angler with a minimum size of 28"), but may sell commercial sized fish their patrons do not want.

Note: Beginning in 2020, the Cape Cod Canal is closed to commercial striped bass fishing.

The current trip limits, season start date, and number of open days (2) per week were set prior to the start of the 2014 commercial fishing season. At that time, large commercial-sized fish were aggregated near shore (particularly off Chatham) producing high commercial landing rates and levels of commercial fishing effort. This produced truncated commercial fishing seasons, substantial market gluts, and a low ex-vessel value. To address these issues, DMF assembled an ad hoc industry group and moved forward the regulatory change that set the current limits. This change dropped the number of open fishing days per week from four to two; reduced the aggregate weekly limit from 95 fish[1] to 30 fish for vessel-based permits and four fish for other permit categories; and opened the season in late June (when fish tend to be more available state wide) rather than mid-July (when they tend to be more aggregated).

These changes have been viewed as highly successful in meeting their management objectives. Rather than closing in early August, the fishery typically remains open into the late summer (and in more recent years has not closed).

In 2020 DMF adjusted the striped bass rules again. The two open fishing days were changed from Mondays and Thursdays to Mondays and Wednesdays to avoid overlapping open fishing days with the commercial black sea bass fishery. Additionally, the minimum size was raised from 34" to 35" to segregate the recreational and commercial sectors into distinct size classes of fish, a 28" to less than 35" slot and 35" or greater, respectively. This helped address ongoing enforcement issues. The distinct size classes also allowed for the elimination of the fin clipping

[1] Under the prior limits, commercial fishermen were allowed to retain and land five fish per day on Sundays and 30 fish per day on Tuesdays, Wednesdays and Thursdays for an aggregate total weekly limit of 95 fish.

rule. Lastly, the Cape Cod Canal was closed to commercial striped bass fishing to ameliorate user group conflicts, local nuisance issues, and poaching concerns. It is difficult to weight the impact of these additional recent management measures given how the pandemic broadly impacted commercial fisheries this past year.

Trends in Quota Management and Fishery Performance

While the above described management system successfully addressed contemporary challenges, fishing conditions have changed between 2014 and 2020. Over the past three seasons those large, accessible aggregations of fish around Cape Cod have not been consistently present during the summer months. This is likely due to changes in stock size, year class effect, predation, forage availability, water temperature, and other environmental factors. As a result, the average daily commercial catch rates from the start of the season through Labor Day decreased by more than 50%; from 54,000 pounds per day in 2014 to 24,000 pounds per day in 2019. The largest decline in year-to-year average daily catch rates was from 2017 to 2018 when rates decreased by 27%. In fact, over the past three years (2018-2020), the commercial fishery has not landed its commercial quota (Appendix – Figure 1). In 2019, only about 68% (585,128 pounds landed of a 869,813 pound quota) was taken. Quota utilization was even lower in 2020, but COVID-19 impacts likely played a significant role in reduced effort and landings.

Subcommittee Meeting Summary and Rationale for Proposed Measures

Commercial Season Opening

DMF recently received a request from a southeastern Massachusetts commercial fisherman to consider opening the season earlier; potentially as early as the Rhode Island opening date in late May. This would give fishermen in the southern part of the state earlier access to fish migrating through those waters. It is worth noting that a June 1st opening data was proposed and taken to public hearing in the Spring of 2020. At that time, public comment was largely opposed to this change and the proposal was not recommended for approval. There was some support for an earlier start date at the Subcommittee meeting, but not as early as the May opening in RI.

Commercial Open Fishing Days

The existing commercial fishing days are Mondays and Wednesdays. These days were adopted in 2020. Previously the open days had been Mondays and Thursdays, but there was concern from rod and reel fishermen that Thursday was an overlapping fishing day for black sea bass and striped bass. Moving the Thursday striped bass open day to Wednesday alleviated this concern and still satisfied the dealer's desire to spread the open days out across the week.

Considering the continued lower catch rates and participation in 2020, there was support among the Subcommittee to consider adding two additional open days (Tuesdays and Thursday) for the 2021 season allowing for four consecutive open fishing days (Monday through Thursday). Consecutive fishing days allow fishermen to fish overnight and sell their fish the next day. Non-consecutive days preventing overnight fishing has long been a point of contention with fishermen, dealers, and law enforcement. Given recent catch rates, the market can likely absorb an increase in aggregate weekly landings thereby reducing the need to spread the landings out over the course of the week to avoid market gluts.

In September, weekly landings rates drop as bad weather days constrain effort and access. Bad weather days become even more of an issue after October 1. Accordingly, there was some support from the Subcommittee to allow additional open fishing days during the fall. The biggest concern was conflicts between recreational and commercial fishermen on weekend days. DMF is proposing to add Fridays as an open fishing day on September 15 and going to seven-days per week on October 1. DMF is not proposing a certain quota trigger. This change in the limits would be built into the regulation, and not be dependent on the in-season adjustment process that DMF has used in recent years to increase the number of open fishing days late in the season.

Commercial Season Closure Date

Historically, commercial landings of striped bass come to an end by the last week in October. For the past three years, the quota has not been caught, so by regulation the commercial fishery stayed open until December 31. This complicates DMF's efforts to collect unused striped bass tags from the primary buyer dealers. Establishing a reasonable annual closure date for years when we do not reach the quota will greatly improve DMF's ability to collect unused striped bass tags prior to the end of the year and the permit renewal period. There were no objections to this in the Subcommittee meeting.

Appendix

Figure 1: Commercial Quota & Landings Trend

Year	Quota (lbs)	Landings (Live lbs)	% Landed
2013	997,869	1,004,459	100.7
2014	1,155,100	1,138,507	98.6
2015	869,813	866,041	99.6
2016	869,813	938,741	107.9
2017	800,855	823,409	102.8
2018	847,585	753,731	88.9
2019	869,813	585,128	67.4
2020	735, 240	386, 405*	52.6

Source: SAFIS Dealer Reports, as of 12/18/20

*Preliminary

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MEMORANDUM

TO: Marine Fisheries Advisory Commission (MFAC)

THRU: Daniel J. McKiernan, Director

FROM: Story Reed, Permitting and Stats Program Manager

DATE: January 21, 2021

SUBJECT: Summary of December 21, 2020 Striped Bass Sub-Committee Meeting

The MFAC's Striped Bass Sub-Committee (SBSC) met on December 21, 2020. The SBSC consists of: Raymond Kane, MFAC Chair; Michael Pierdinock, MFAC Vice-Chair; Bill Doyle, MFAC Clerk; and Kalil Boghdan. All members were in attendance Additionally, from the Division Marine Fisheries were: Daniel McKiernan, Director; Mike Armstrong, Assistant Director; Jared Silva; Story Reed; Nichola Meserve; Anna Webb; and Julia Kaplan.

Introduction

Director Dan McKiernan provided introductory remarks addressing the goals and objectives of this meeting, as well as some background of the striped bass fishery. The meeting was designed to serve two purposes. First, the Director wanted feedback on what were supportable amendments to the commercial fishing rules for the 2021 season. Second, what types of analyses would be helpful in the consideration of more long-term management objectives for this fishery.

Overview of 2020 Commercial Season

McKiernan discussed the quota utilization of the commercial striped bass fishery. Overall, only 52.6% of the quota was utilized, even after an additional day was added to the fishery for September and October.

Story Reed compared quota utilization along with daily landings, daily average price, and annual average price for the years 2017-2020. He stated there was a decline in participation in the commercial fishery by nearly half in 2020 as compared to 2019. The cause of the decline is not entirely clear, but it could possibly be attributed to a combination of COVID, COVID-related access issues, catch rates, and the closure of the Cape Cod Canal to commercial striped bass fishing.

Recent Commercial Regulation Changes

A timeline (2013 – 2020) of recent regulatory changes to the commercial striped bass fishery was presented.

The SBSC then raised several questions. Members asked about the length of the commercial fishery in years past, as well as what amount of the state's commercial landings are sold out of state. DMF informed the SBSC that they do not track the sale of fish beyond the primary purchase between the harvester and the dealer. Members were also interested in the number of dual recreational and commercial permit holders, and if there was a correlation between annual performance in one fishery when compared to the other.

Since the quota was not reached commercially in recent years, concerns were expressed regarding the possible reason(s) why this was occurring. Much of the ensuing discussion centered around regulations put in place regulating the fishery, which limit the ability to reach the quota, as well as environmental and biological factors that may be influencing catch rates. DMF was asked to break down the landings data at a regional level. Story Reed indicated this could be done based on statistical reporting areas; 2020 harvester data would not be available for this analysis until mid-2021.

<u>Potential Short-Term (2021) Changes</u>
The SBSC reviewed a number of potential short-term changes brought forward by Director McKiernan. These potential changes are listed below:

Earlier Start Date
- DMF received a request from a Southeastern MA fisherman top open the season on the same date as Rhode Island, approximately May 20th.

Additional Open Days
- Consider allowing back-to-back fishing days to improve efficiency;
- Increase the number of days from 2 up to 4 to start the season; and
- Include a quota utilization trigger to add more days after September 1.

November 1st Closure Date
- If quota has not been landed, close fishery on November 1.

There was general interest in having the fishery start earlier in the season. However, there was little consensus on what the opening date should be. There was no support for the requested May 20 open season start date based on feedback heard at the December 2019 ad-hoc industry meeting and winter 2020 public hearings on commercial striped bass limits. At the December 2019 ad-hoc industry meeting, dealers raised concerns about spring and early summer market prices. Then at the public hearings, there was extensive comment in opposition to an earlier start date from commercial and recreational anglers citing user group conflicts, access, quota utilization, and anticipated market conditions. Ultimately, an early-to-mid June opening date was determined to be preferred.

Overall, there was consensus among the MFAC members that there needs to be more access for the commercial fishery. Initial discussion focused on to what extent the number of fishing days per week should be increased from the current two-day (Monday and Wednesday) schedule. A suggestion was made to begin the season with a five-day week. It was argued this would allow the fish to be targeted and caught when catch rates are high and there is a market demand for the

fish. Others preferred to avoid going to a five-day week due to concerns about user group conflicts with the recreational sector. There was some support for a four-day fishing week provided the four-days ran concurrently from Monday – Thursday and did not overlap with the Friday – Sunday weekend period.

Expanding the number of fishing days per week also raised concerns regarding overlap with the open fishing days for the summertime commercial black sea bass fishery. Story suggested DMF could conduct an analysis to see how many permit holders may be affected. Sub-committee members also recognized that there are not enough days in the week to manage overlap if access is increased and ultimately it was up to the fishermen to choose which fishery they would participate in on any given day.

Lastly, there was discussion regarding adopting a quota utilization trigger to increase the number of fishing days per week in the fall if a certain percentage of quota remained on the table. This would allow for the rule change to be built into the regulation, rather than DMF moving to adopt such changes via an in-season adjustment process. A consensus position was not reached. Some favored allowing the fishery to operate with no closed fishing days after September 1, while others did not favor weekend fishing due to conflicts with the recreational sector.

No objections were raised to potentially adopting a November 1 seasonal closure to the commercial striped bass fishery. Catch data shows that landings typically cease at the end of October when the fish have migrated out of our waters. A November 1 closure date would be consistent with this and would thereby allow DMF to begin end-of-the-year striped bass tag accounting once the commercial season effectively ends.

Director McKiernan indicated that he would develop a public hearing proposal for the full MFAC to vet at an upcoming business meeting with the intention of adopting some of these short-term changes for 2021.

<u>Potential Long-Term (2022 & beyond) Changes</u>
The ASMFC's Striped Bass FMP requires commercial striped bass tagging but does not stipulate whether the tagging is to occur at point of harvest (harvester tagging) or point of sale (dealer tagging). When the program was implemented in 2014, DMF opted to adopt a dealer tagging program in its regulations. This decision was made in recognition of the administrative burden associated with having more than 4,000 permit holders entering a harvester tagging program. However, the enforcement and compliance benefits associated with a tagging program are likely enhanced with a harvester tagging program.

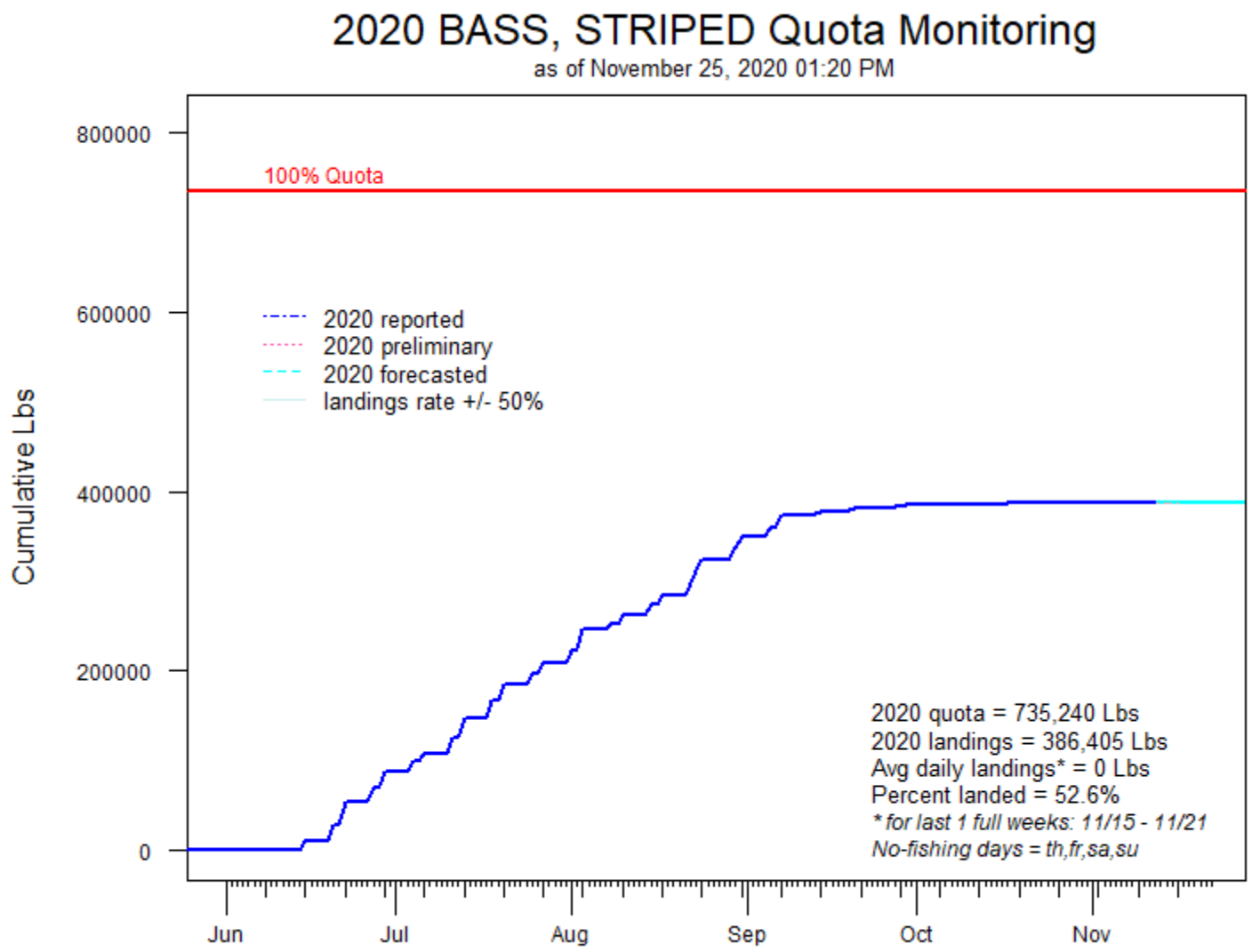
There was some interest among the SBSC in adopting a harvester tagging program. Director McKiernan indicated a willingness to address the issue. However, he noted that this would likely necessitate DMF to make striped bass a limited entry commercial fishery, and consider additional measures to address latent effort and establish activity level thresholds for future permit renewals. This would be a substantial departure from how the fishery has historically been managed. Based on DMF's recent experience with the commercial tautog fishery, it would also likely prompt substantial objections from some of our commercial striped bass permit holders.

Director McKiernan thought that the sub-committee needed to address the question of limited access. In order to explore this type of change, DMF recognized it needed to provide the SBSC with an in-depth analysis. DMF and the SBSC determined it would be appropriate to tease out the following data: annual permit turnover rate; the number of current permit holders that have held a permit for consecutive years during a defined period; the number of years that a permit holder has landed striped bass during a defined period; and the number of permits at certain annual activity thresholds during the defined period. There was also interest in exploring means to allow young persons to enter the fishery without the economic burden of obtaining a limited entry permit. These outstanding issues will be further addressed at subsequent SBSC meetings.

Attachment:
December 21, 2020 SBSC Presentation

Striped Bass Subcommittee

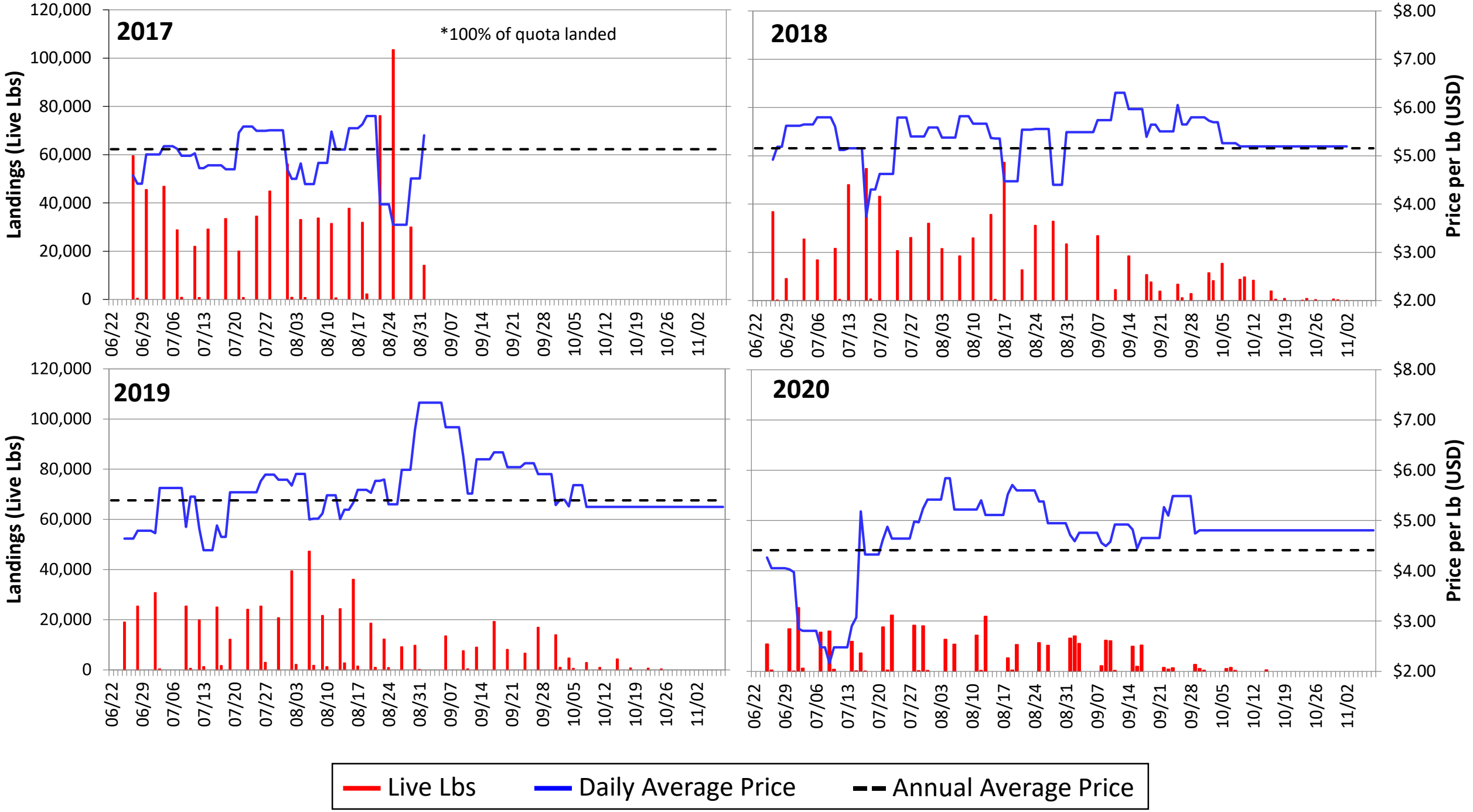
December 21, 2020


2020 BASS, STRIPED Quota Monitoring
as of November 25, 2020 01:20 PM
800000
600000
400000
200000
0
Cumulative Lbs
100% Quota
2020 reported
2020 preliminary
2020 forecasted
landings rate +/- 50%
2020 quota = 735,240 Lbs
2020 landings = 386,405 Lbs
Avg daily landings* = 0 Lbs
Percent landed = 52.6%
* for last 1 full weeks: 11/15 - 11/21
No-fishing days = th,fr,sa,su
Jun
Jul
Aug
Sep
Oct
Nov

Commercial Landings Trend

Year	Quota	Landings (Live lbs)	% Landed
2013	997,869	1,004,459	100.7%
2014	1,155,100	1,138,507	98.6%
2015	869,813	866,041	99.6%
2016	869,813	938,741	107.9%
2017	800,885	823,409	102.8%
2018	847,585	753,731	88.9%
2019	869,813	585,128	67.4%
2020	735,240	386,405*	52.6%

SOURCE: SAFIS Dealer Reports, as of 12/18/20
*** Preliminary**


2017
*100% of quota landed
2018
2019
2020
Landings (Live Lbs)
Price per Lb (USD)
120,000
100,000
80,000
60,000
40,000
20,000
0
$8.00
$7.00
$6.00
$5.00
$4.00
$3.00
$2.00
06/22
06/29
07/06
07/13
07/20
07/27
08/03
08/10
08/17
08/24
08/31
09/07
09/14
09/21
09/28
10/05
10/12
10/19
10/26
11/02
Live Lbs
Daily Average Price
Annual Average Price

Recent Regulatory Changes

2013: February 28th permit endorsement deadline

2014:

- Halved the number of open fishing days per week from 4 to 2, including eliminating Sundays
- Reduced daily trip limits from 30-fish on weekdays and 5-fish on Sundays to 15-fish for boat-based permit holders and 2-fish for all other permit holders
- Restricted the ability of for-hire operators to fish commercially during a for-hire trip

2015: Required fin clipping to prevent stockpiling

2018: Closed the commercial fishery around summer holidays

2020:

- Increased the minimum size from 34” to 35”, removed fin clipping requirement
- Closed the Cape Cod Canal to commercial fishing

Potential Short-Term (2021) Changes

Earlier Commercial Season Start Date

- DMF has received a request from a Southeastern MA fisherman to open the season on the same date as Rhode Island, approximately May 20th

Additional Open Days

- Consider allowing back-to-back fishing days to improve efficiency
- Increase the number of days from 2 to up to 4 to start the season
- Include a quota utilization trigger to add more days after September 1st

November 1st Closure Date

- If quota hasn't been landed, close fishery on November 1st

Potential Long-Term (2022 & beyond) Changes

Harvester Tagging

- Consider switching from dealer to harvester tagging
- Harvester tagging would be a better law enforcement tool

Why do we sell ~4,800 endorsements and less than 25% are active?

- Should limited entry by considered?

Data Needs

In order to explore long-term changes, what are the data needs?

- What is the permit turnover rate annually?
- How many current permit holders have held the permit for a certain number of consecutive years (e.g. 3, 5, 7)? How many of these have been fished in that time period?
- How many permits at certain annual activity thresholds?

Atlantic States Marine Fisheries Commission

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703.842.0740 • 703.842.0741 (fax) • www.asmfc.org

Patrick C. Keliher (ME), Chair *Spud Woodward (GA), Vice-Chair* *Robert E. Beal, Executive Director*

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

MEMORANDUM

January 20, 2021

TO: Commissioners; Proxies; American Lobster Management Board; Atlantic Coastal Cooperative Statistics Program Coordinating Council; Atlantic Herring Management Board; Atlantic Menhaden Management Board; Atlantic Striped Bass Management Board; Bluefish Management Board; Coastal Sharks Management Board; Executive Committee; Interstate Fisheries Management Program Policy Board; Mid-Atlantic Fishery Management Council; Shad and River Herring Management Board; Summer Flounder, Scup, and Black Sea Bass Management Board; Winter Flounder Management Board

FROM: Robert E. Beal
Executive Director

RE: ASMFC Winter Meeting Webinar: February 1-4, 2021

The Atlantic States Marine Fisheries Commission's Winter Meeting Webinar will be held February 1-4, 2021. Meeting materials are now available on the Commission website at http://www.asmfc.org/home/2021-winter-meeting-webinar. Supplemental materials will be posted to the website on Wednesday, January 27.

Board meeting proceedings will be broadcast daily via webinar beginning Monday, February 1 at 9:30 a.m. and continuing daily until the conclusion of the meeting (expected to be 4:30 p.m.) on Thursday, February 4. The webinar will allow registrants to listen to board deliberations and view presentations and motions as they occur. To register for the webinar go to https://attendee.gotowebinar.com/register/4886491769864000527, Webinar ID# 151-774-483.

Each day, the webinar will begin 30 minutes prior to the start of the first meeting so that people can troubleshoot any connectivity or audio issues they may encounter. If you are having issues with the webinar (connecting to or audio related issues), please contact Chris Jacobs at 703.842.0790.

If you are joining the webinar but will not be using VoIP, you can may also call in at 415.930.5321 (a pin will be provided to you after joining the webinar); see webinar instructions http://www.asmfc.org/files/Meetings/2021WinterMeetingWebinar/Webinar_Instructions_Winter2021.pdf. for details on how to receive the pin. For those who will not be joining the webinar but would like to listen in to the audio portion only, you can do so by dialing 415.930.5321 (access code: 864-933-588)

We look forward to meeting with you at the Winter Meeting Webinar. If the staff or I can provide any further assistance to you, please call us at 703.842.0740.

Enclosure: Final Agenda

Atlantic States Marine Fisheries Commission

Winter Meeting Webinar

February 1-4, 2021

Public Comment Guidelines

To provide a fair opportunity for public input, the ISFMP Policy Board approved the following guidelines for use at management board meetings. **Please note these guidelines have been modified to adapt to meetings via webinar**:

For issues that are not on the agenda, management boards will continue to provide an opportunity to the public to bring matters of concern to the board's attention at the start of each board meeting. Board chairs will ask members of the public to raise their hands to let the chair know they would like to speak. Depending upon the number of commenters, the board chair will decide how to allocate the available time on the agenda (typically 10 minutes) to the number of people who want to speak.

For topics that are on the agenda, but have not gone out for public comment, board chairs will provide limited opportunity for comment, taking into account the time allotted on the agenda for the topic. Chairs will have flexibility in deciding how to allocate comment opportunities; this could include hearing one comment in favor and one in opposition until the chair is satisfied further comment will not provide additional insight to the board.

For agenda action items that have already gone out for public comment, it is the Policy Board's intent to end the occasional practice of allowing extensive and lengthy public comments. Currently, board chairs have the discretion to decide what public comment to allow in these circumstances.

In addition, the following timeline has been established for the **submission of written comment for issues for which the Commission has *NOT* established a specific public comment period** (i.e., in response to proposed management action).

1. Comments received 3 weeks prior to the start of the webinar (January 11) will be included in the briefing materials.
2. Comments received by 5:00 PM on Tuesday, January 26 will be included in the supplemental materials.
3. Comments received by 10:00 AM on Friday, January 29 will be distributed electronically to Commissioners/Board members prior to the meeting.

Comments should be submitted via email at comments@asmfc.org. All comments must clearly indicate the commenter's expectation from the ASMFC staff regarding distribution.

Final Agenda

The agenda is subject to change. The agenda reflects the current estimate of time required for scheduled Board meetings. The Commission may adjust this agenda in accordance with the actual duration of Board meetings. It is our intent to begin at the scheduled start time for each meeting, however, if meetings run late the next meeting may start later than originally planned.

Monday, February 1

9:30 – 10:45 a.m. **Summer Flounder, Scup, and Black Sea Bass Management Board**

Member States: Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina
Other Members: NMFS, PRFC, USFWS
Chair: Nowalsky
Other Participants: Wojcik, Snellbaker
Staff: Colson Leaning, Lewis

1. Welcome/Call to Order *(A. Nowalsky)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from August 2020
3. Public Comment
4. 2021 Recreational Management Measures for Summer Flounder, Scup, and Black Sea Bass *(D. Colson Leaning, S. Lewis)*
   - Consider State Proposals for Adjusting 2021 Recreational Measures **Possible Final Action**
   - Consider Virginia Proposal for Wave 1 Recreational Black Sea Bass Fishery **Final Action**
5. Recess for ISFMP Policy Board & Mid-Atlantic Fishery Management Council (MAFMC) Discussion on Recreational Management Reform Initiative

10:45 – 11:45 a.m. **Interstate Fisheries Management Program Policy Board and MAFMC**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Other Members: DC, NMFS, PRFC, USFWS
ASMFC Chair: Keliher
MAFMC Chair: Luisi
Other Participants: Beaty
Staff: Kerns

1. Welcome/Call to Order *(P. Keliher, ASMFC/M. Luisi, MAFMC)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from August 2020
3. Public Comment
4. Discuss Recreational Management Reform Initiative *(J. Beaty*) **Possible Action**
5. Recess until Thursday, February 4 at 1:45 p.m.

Noon – 1:00 p.m. **Lunch Break**

1:00 – 4:30 p.m. **Summer Flounder, Scup, and Black Sea Bass Management Board and MAFMC**

Member States: Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina
Other Members: NMFS, PRFC, USFWS
Board Chair: Nowalsky
MAFMC Chair: Luisi
Other Participants: Wojcik, Snellbaker
Staff: Colson Leaning, Lewis

6. Reconvene as a Joint Meeting with MAFMC
7. Consider Draft Addendum XXXIII and Council Amendment on Black Sea Bass Commercial State Allocations for Final Approval *(S. Lewis, C. Starks)* **Final Action**
8. Other Business/Adjourn

Tuesday, February 2

8:30 a.m. – 12:15 p.m. **American Lobster Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia
Other Members: NEFMC, NMFS
Chair: McKiernan
Other Participants: Reardon, Perry, Beal, Coogan, Shank
Staff: Starks

1. Welcome/Call to Order *(D. McKiernan)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2020
3. Public Comment
4. Review and Discuss Proposed Rule and Draft Environmental Impact Statement for Atlantic Large Whale Take Reduction Plan Proposed Modifications for 2021 *(C. Coogan)*
5. Consider Management Response to the 2020 American Lobster Benchmark Stock Assessment and Peer Review *(D. McKiernan)* **Possible Action**
   - Review Stock Status, Reference Points and Assessment Recommendations *(C. Starks)*
   - Discuss Development of Draft Addendum XXVII on Gulf of Maine Resiliency *(C. Starks)*
6. Discuss Potential for Conducting a Management Strategy Evaluation for the American Lobster Fishery *(B Shank/J. Kipp)*
7. Review and Populate Jonah Crab Advisory Panel Membership *(T. Berger)* **Action**
8. Elect Vice-Chair **Action**
9. Other Business/Adjourn

12:15 – 1:30 p.m. **Lunch Break**

1:30 – 2:15 p.m. **Winter Flounder Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey
Other Members: NMFS
Chair: Borden
Other Participants: Nitschke, Blanchard, Brown
Staff: Colson Leaning

1. Welcome/Call to Order *(D. Borden)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2020
3. Public Comment
4. Consider Specifications for the 2021 Fishing Year *(D. Colson Leaning)* **Final Action**
   - Technical Committee Report
   - Advisory Panel Report
5. Other Business/Adjourn

2:30 – 3:45 p.m. **Atlantic Menhaden Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Other Members: NMFS, PRFC, USFWS
Chair: Woodward
Other Participants: Newhard, Kersey
Staff: Rootes-Murdy

1. Welcome/Call to Order *(S. Woodward)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2020
3. Public Comment
4. Review Recent Fishery Performance Relative to Commercial Allocations *(K. Rootes-Murdy)*
5. Other Business/Adjourn

4:00 – 5:15 p.m. **Atlantic Herring Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey
Other Members: NEFMC, NMFS
Chair: Patterson
Other Participants: Zobel, Brown
Staff: Rootes-Murdy, Franke

1. Welcome/Call to Order *(C. Patterson)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2020

3. Public Comment
4. Set Sub-Annual Catch Limit for 2021-2023 Fishing Years *(K. Rootes-Murdy)* **Final Action**
5. Update on Amendment 8 and Consider Impacts to the Area 1A Fishery *(K. Rootes-Murdy)*
6. Update on New England Fishery Management Council and Commission Coordination Discussions *(R. Beal)*
7. Other Business/Adjourn

Wednesday, February 3

8:00 – 10:00 a.m. **Executive Committee**

Members: Abbott, Anderson, Batsavage, Bell, Bowman, Cimino, Clark, Davis, Estes, Gilmore, Keliher, Kuhn, McKiernan, McNamee, Miller, Patterson, Woodward
Chair: Keliher
Staff: Leach

1. Welcome/Call to Order *(P. Keliher)*
2. Committee Consent
   - Approval of Agenda
   - Approval of Meeting Summary from October 2020
3. Public Comment
4. Update on Second Round of CARES Act Assistance *(R. Beal)*
5. Legislative and Appropriations Update *(R. Beal)*
6. Future Annual Meeting Update *(L. Leach)*
7. Other Business/Adjourn

10:15 – 11:00 a.m. Coastal Sharks Management Board

Member States: Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Other Members: NMFS
Chair: Batsavage
Other Participants: Willey, Garner, McCandless
Staff: Rootes-Murdy

1. Welcome/Call to Order *(C. Batsavage)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from February 2020
3. Public Comment
4. Review NOAA Fisheries Cooperative Shark Tagging Program *(C. McCandless)*
5. Update from NOAA Fisheries on Highly Migratory Species Management *(K. Brewster-Geisz)*
6. Review and Populate Advisory Panel Membership *(T. Berger)* **Action**
7. Other Business/Adjourn

11:15 a.m. – 12:15 p.m. **Atlantic Coastal Cooperative Statistics Program Coordinating Council**
Partners: ASMFC, Connecticut, Delaware, District of Columbia, Florida, Georgia, MAFMC, Maine, Maryland, Massachusetts, NEFMC, New Hampshire, New Jersey, New York, NMFS, North Carolina, Pennsylvania, PRFC, Rhode Island, SAFMC, South Carolina, USFWS, Virginia
Chair: Carmichael
Staff: White

1. Welcome/Call to Order *(J. Carmichael)*
2. Council Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2020
3. Public Comment
4. Review Project and Program Funding *(G. White)*
5. Other Business/Adjourn

12:15 – 1:45 p.m. **Lunch Break**

1:45 – 5:00 p.m. **Atlantic Striped Bass Management Board**
Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina
Other Members: DC, NMFS, PRFC, USFWS
Chair: Borden
Other Participants: Sullivan, Blanchard
Staff: Franke

1. Welcome/Call to Order *(D. Borden)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from October 2020
3. Public Comment
4. Review Technical Committee Report on Release Mortality Sensitivity Runs *(K. Sullivan)*
5. Consider Stock Assessment Update Timeline *(K. Drew)* **Action**
6. Discuss Circle Hook Implementation *(T. Kerns)* **Possible Final Action**
7. Consider Draft Amendment 7 Public Information Document for Public Comment *(T. Kerns)* **Action**
8. Review and Populate Advisory Panel Membership *(T. Berger)* **Action**
9. Other Business/Adjourn

Thursday, February 4

8:30 – 11:30 a.m. **Shad and River Herring Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Other Members: DC, NMFS, PRFC, USFWS
Other Participants: Sprankle, Furlong, Lyons Gromen, Neilan
Chair: Armstrong
Staff: Starks

1. Welcome/Call to Order *(M. Armstrong)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from August 2020
3. Public Comment
4. Consider Management Response to 2020 Shad Benchmark Stock Assessment and Peer Review *(M. Armstrong)*
   - Review Technical Committee Recommendations *(B. Neilan)*
   - Advisory Panel Report *(P. Lyons Gromen)*
5. Review Technical Committee Recommendations on Improvements to Amendments 2 and 3 *(B. Neilan)* **Possible Action**
6. Consider Shad Habitat Plan Updates **Action**
   - Review Technical Committee Recommendations *(B. Neilan)*
7. Consider Fishery Management Plan Review and State Compliance for the 2019 Fishing Year *(C. Starks)* **Action**
8. Review and Populate Advisory Panel Membership *(T. Berger*) **Action**
9. Other Business/Adjourn

11:30 a.m. – 12:45 p.m. **Lunch Break**

12:45 – 1:30 p.m. **Bluefish Management Board**

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Other Members: NMFS, PRFC, USFWS
Chair: Batsavage
Other Participants: Celestino, Kersey
Staff: Colson Leaning

1. Welcome/Call to Order *(C. Batsavage)*
2. Board Consent
   - Approval of Agenda
   - Approval of Proceedings from August 2020
3. Public Comment
4. Consider Revisions to the Addendum l Biological Monitoring Program *(D. Colson Leaning)* **Final Action**
5. Review and Populate Advisory Panel Membership *(T. Berger)* **Action**
6. Other Business/Adjourn

1:45 a.m. – 4:15 p.m. Interstate Fisheries Management Program Policy Board

6. Reconvene from February 1, 2021
7. Public Comment
8. Executive Committee Report *(P. Keliher)*
9. Progress Update on the Risk and Uncertainty Policy *(J. McNamee)*
    - Review Draft of the Risk and Uncertainty Policy
    - Discuss Steps to Consider Final Approval of the Policy
10. Review and Discuss 2020 Commissioner Survey Results *(D. Tompkins)*
11. Review State Membership on Species Management Boards *(T. Kerns)* **Action**
    - Review State Declared Species of Interest
    - Review Pennsylvania's Membership on the Atlantic Menhaden Management Board
12. Discuss Commission Process for Working on Recreational Reform Issues with the MAFMC *(T. Kerns)*
13. Discuss Possible Reporting Programs to Capture Recreational Release Data *(T. Kerns)*
14. Committee Reports *(L. Havel)* **Action**
    - Habitat Committee
    - Artificial Reef Committee
    - Atlantic Coast Fisheries Habitat Partnership
15. Review Noncompliance Findings (if necessary) **Action**
16. Other Business/Adjourn

4:15 – 4:30 p.m. Business Session

Member States: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida
Chair: Keliher
Staff: Beal

1. Welcome/Call to Order *(P. Keliher)*
2. Committee Consent
    - Approval of Agenda
    - Approval of Proceedings from October 2020
3. Public Comment
4. Consider Noncompliance Recommendations (if necessary) **Final Action**
5. Other Business/Adjourn

The Commonwealth of Massachusetts
Division of Marine Fisheries

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CHARLES D. BAKER, Governor | KARYN E. POLITO, Lt. Governor | KATHLEEN A. THEOHARIDES, Secretary | RONALD S. AMIDON, Commissioner | DANIEL J. MCKIERNAN, Director

MEMORANDUM

TO: Emilie Franke, ASMFC Atlantic Striped Bass Plan Coordinator

FROM: Daniel McKiernan, Director

DATE: January 20, 2021

SUBJECT: Revised MA Implementation Plan for Striped Bass Addendum VI Circle Hook Requirement

This memorandum serves to provide the Atlantic Striped Bass Management Board with the Massachusetts Division of Marine Fisheries' revised plan for compliance with the circle hook provision of Addendum VI to Amendment 6 of the Interstate Fishery Management Plan for Atlantic Striped Bass. On October 22, 2020, the Board approved the states' implementation plans, with the caveat that no exemptions to Addendum VI's requirement for the use of circle hooks when fishing with bait would be permitted. Massachusetts exemptions in 2020 included one for anglers fishing aboard for-hire vessels as well as for anglers using an artificial lure.

As expected of us, MA DMF has begun its rulemaking process to remove the exemptions in our state regulations. However, in the interim MA DMF and Maine Department of Marine Resources have collaboratively developed a proposal to study the tube rig fishery (refer to the Board's briefing materials for its February 3, 2021 meeting). If approved, this proposal would temporarily allow for continued baited tube rig fishing (with a single J hook) in Massachusetts, with the potential for future authorization subject to Board action. Consequently, DMF presents herein two sets of regulatory language dependent on the outcome of Board discussion and possible action on that proposal; under one of them, MA DMF would apply the same language as in ME DMR's prior tube rig exemption. In all cases, the exemptions for anglers aboard for-hire vessels and using artificial lures in general will be struck.

In addition, MA DMF will be making a clarification to the term "natural bait" as used within our circle hook regulation (previously undefined). Our review of the states' proposed or implemented regulations demonstrates a lack of consistency between the states with regards to the definition of "bait" (Table 1). Our intended usage of the term fits within this range of interpretations of Addendum VI's language. DMF will include in its final regulations that "natural bait" excludes pork rind attached to an artificial lure. This is based on the fact that a pork rind is neither "natural" nor "bait" when used in this manner. It is highly processed and entices predation due to its action in the water as opposed to producing an olfactory attraction; it thus comprises part of the artificial lure. There is no discernable difference for the conservation of the striped bass resource between using a pork rind or synthetic strip on a jig.

MA DMF will also add language to address another question we have received from stakeholders: what is required to be done with a striped bass that is unintentionally caught on a baited hook that is other than a circle hook. We are modeling this language after what New York has proposed, to say that such a fish must be immediately released without unnecessary injury.

MA DMF would like to stress that the agency is a strong supporter of the resource conservation intended to be achieved through the mandatory use of circle hooks for baited striped bass fishing. We have been a pioneer in discard mortality studies, an advocate of voluntary circle hook use, and an early adopter of mandatory circle hook use. However, we contend that Addendum VI's mandate was never intended to apply to artificial lures, such as tube & worm and bucktail jigs. Studies that have demonstrated a reduction in gut-hooking and/or post-release mortality for circle hooks—upon which Addendum VI's mandate is founded—have done so with traditional "bait fishing"; a hook on a line, not an artificial lure. Mandates without justification pose a risk to the public's confidence in and adoption of our management. I urge the Board to consider this fact when reviewing this implementation plan and the joint MA DMF/ME DMF tube rig study proposal.

These revisions to our circle hook implementation plan will not change our anticipated implementation date of May 1, 2021, prior to the fishery's onset in our state waters.

Regulatory Language

Existing Language[1]

322 CMR 6.07: Striped Bass Fishery (*Morone Saxatalis*)

(2) Definitions. For purposes of 322 CMR 6.07, the following words shall have the following meanings:

Circle Hook is defined as a fishing hook designed and manufactured so that the barb of the hook is not offset from the plane of the shank and bend and is turned perpendicularly back towards the shank to form a circular or oval shape.

(5) Recreational Management Measures. For purposes of conservation and management of the resource, the following measures shall apply to recreational fishermen who harvest, catch, take or possess or attempt to harvest, catch, take or possession any striped bass:

(f) Mandatory Use of Circle Hooks. Recreational fishermen fishing from shore or private vessels shall use circle hooks when fishing for striped bass with whole or cut natural baits. This shall not apply to any artificial lure designed to be trolled, cast and retrieved, or vertically jigged with natural bait attached.

Alternative 1 Revisions: Assumes Board Approval of ME DMR/MA DMF Tube Rig Proposal

(f) Mandatory Use of Circle Hooks. Recreational fishermen shall use circle hooks when fishing for striped bass with whole or cut natural baits. This shall not apply to rubber or latex tube rigs as long as they conform with the following: the lure must consist of a minimum of 8" of latex or rubber tubing with a single hook protruding from the end portion of the tubing where natural bait may be attached. Use of treble hooks is not allowed with these rigs. For the purpose of this regulation, "natural baits" shall exclude pork rind attached to an artificial lure. Striped bass caught on any other type of hook baited with natural bait must be returned to the water immediately without unnecessary injury.

Alternative 2 Revisions: Assumes Board Denial of ME DMR/MA DMF Tube Rig Proposal

(f) Mandatory Use of Circle Hooks. Recreational fishermen shall use circle hooks when fishing for striped bass with whole or cut natural baits. For the purpose of this regulation, "natural baits" shall exclude pork rind attached to an artificial lure. Striped bass caught on any other type of hook baited with natural bait must be returned to the water immediately without unnecessary injury.

[1] Relevant language included; full text available at www.mass.gov/regulations/322-CMR-600-regulation-of-catches

Table 1. Definitions of "Bait" in State Striped Bass Circle Hook Rules (as identified by MA DMF)

State	Current/Proposed Regulatory Language
ME (in effect)	It is unlawful to use any hook other than a circle hook when using bait [for striped bass]. *"Bait" is elsewhere defined in the striped bass regulations as "any live or dead marine organism, or part thereof."*
NH (proposed)	Any person taking striped bass with bait from the waters of the state by angling shall only use corrodible non-offset circle hooks.
MA (proposed)	Recreational fishermen shall use circle hooks when fishing for striped bass with whole or cut natural baits.
RI (in effect)	The use of circle hooks is required by any vessel or person while fishing recreationally with bait for striped bass.
CT (in effect)	No person shall engage in angling for striped bass with whole, cut, or live natural bait unless such person uses an inline circle hook.
NY (proposed)	A non-offset circle hook…is required when fishing for striped bass when using any natural bait, as defined... Striped bass caught on any other type of hook baited with natural bait must be returned to the water immediately without unnecessary injury. 'Natural bait' means all baits which entice or might be ingested or swallowed by fish including, but not limited to, fish (dead or alive), fish eggs, worms, shellfish, crustacea, amphibians (salamanders, frogs and toads), insects (including all stages of development as larvae, pupae, etc.), pork rinds, liver, meat, corn or other vegetable matter, tapioca, candy, cheese, bread and putty or dough-like scented baits.
NJ (in effect)	Hook and line fishermen are hereby restricted to the use of non-offset circle hooks while fishing with any natural bait.
PA (in effect)	It is unlawful to fish with bait for any species of fish in the tidal Delaware Estuary, including tributaries from the mouths of the tributaries upstream to the limit of tidal influence using any hook type other than non-offset (in-line) circle hooks.
DE (proposed)	It is unlawful for any person to fish for striped bass with natural bait using any hook other than a non-offset circle hook.
MD (proposed)	When fishing for striped bass, a person recreationally angling in the Chesapeake Bay or its tidal tributaries shall only use a circle hook when using fish, crabs, or worms as bait, or processed bait. When fishing for striped bass, a person recreationally angling in the Atlantic Ocean, its coastal bays, or their tributaries shall only use a circle hook when using fish, crabs, or worms as bait, or processed bait. [Additional terminal tackle rules apply for any recreational angling in Chesapeake Bay & tributaries.] *"Bait" is elsewhere defined in regulation as an attractant to catch fish which includes: (1) The living or dead, whole body or part of body of an animal; or (2) A processed product from an animal or vegetative source.*
VA (in effect)	Any person fishing recreationally shall use non-offset, corrodible, non-stainless steel circle hooks when fishing with bait, live or chunk.
NC (in effect)	It is unlawful to fish for or possess striped bass from the Atlantic Ocean for recreational purposes using hook and line gear with natural bait unless using a non-stainless steel, non-offset (inline) circle hook, regardless of tackle or lure configuration. Natural bait is defined as any living or dead organism (animal or plant) or parts thereof.

TO: Atlantic Striped Bass Management Board

FROM: Patrick Keliher, Commissioner, Maine Department of Marine Resources
Daniel McKiernan, Director, Massachusetts Division of Marine Fisheries

DATE: January 21, 2021

RE: A Proposal to Study the Tube Rig Fishery and Consider Its Exemption from the Circle Hook Provision

Overview

The Maine Department of Marine Resources (ME DMR) and the Massachusetts Division of Marine Fisheries (MA DMF) are submitting a proposal to collect data on the recreational striped bass baited tube rig fishery. Goals of this study are to assess the prevalence of baited tube rigs in the fishery and their incidence of deep hooking. To enable this study, ME and MA are requesting an allowance for the continued use of traditional baited tube rigs (with a J hook) in the recreational striped bass fishery. This allowance, either for ME and MA alone or coastwide, would terminate after the two-year study unless additional action is taken by the Board to extend or permanently approve the use of tube rigs in the fishery.

Background

At its October meeting, the Atlantic Striped Bass Management Board (Board) voted to prohibit any exemptions to the Addendum VI provision specifying the use of circle hooks when recreationally fishing for striped bass with bait. In order to come into compliance with this provision, ME DMR adopted an emergency regulation on December 16, 2020 which removed the state's previous exemption for those fishing with baited latex and rubber tube rigs. Similarly, MA DMF initiated rule-making to remove the state's exemption for those fishing with any artificial lure to which natural bait is attached (which allowed for baited tube rigs among other terminal tackles including an artificial lure) prior to the fishery's onset.[1]

In response to these regulatory actions, ME DMR and MA DMF heard from a wide assortment of stakeholders expressing concern, frustration, and confusion with these changes. Many individuals, while supportive of measures to protect the striped bass resource, were surprised by this management outcome, given an understanding that Addendum VI's circle hook requirement was meant to address simple hook-on-a-line tackle—the type of baited hook configurations for which studies have shown a difference in deep hooking rates between J hooks and circle hooks. In particular, they did not understand the purpose of prohibiting a tube rig with a J hook given their experience that this terminal tackle rarely, if ever, results in deep hooking. Because they did not see a conservation benefit in requiring the use of circle hooks with a tube rig, they worried that such a measure would unintentionally erode public support for circle hooks. Others indicated that it is not possible to fish a tube rig with a circle hook because the circle hook will not set in the fish when the bait is being trolled or cast through the water;

[1] Massachusetts' regulation also exempted anglers aboard for-hire vessels; this part of the exemption will be eliminated without further Board guidance, and is not a focus of this proposal.

hence, the circle hook requirement effectively prohibits this popular terminal tackle for striped bass fishing. Members of Maine's worming industry highlighted resulting economic impacts to their business given worms are often attached to the tube rig when fishing.

In response to these concerns, ME DMR and MA DMF have developed this proposal to collect data on the use of tube rigs in the recreational striped bass fishery. While agency staff and industry anecdotally describe the low incidence of deep hooking with a tube rig, to our knowledge, a study focused on this terminal tackle has not occurred. Further, given the MRIP survey does not collect information on terminal gear, the population of those using tube rigs is unknown. Given this dearth of information, there are key questions regarding the size of the fishing population impacted by the removal of the tube rig exemption as well as the relative biological impact of fishing this type of gear. Given the goal of the Addendum VI circle hook provision is to reduce the discard mortality of striped bass in the recreational fishery, should tube rigs already result in a low incidence of deep hooking, the net benefit of requiring circle hooks may be negligible. Said another way, a narrow exemption for tube rigs may not undermine the goal of the circle hook provision.

Description of a Tube Rig

Tube rigs are a traditional method of recreational fishing. As a part of this terminal gear, a section of latex or rubber tubing encircles the mainline with the hook protruding from the end of the tubing. Bait, such as worms, can be attached to the hook. The gear is actively monitored while fished, whether it is cast into a current or trolled at low speeds behind a boat or kayak. Under Maine's prior regulation, tube rigs exempt from the circle hook requirement were required to have a tube measuring at least 8 inches long and were restricted to having a single hook protruding from the end to which bait is attached.[2]

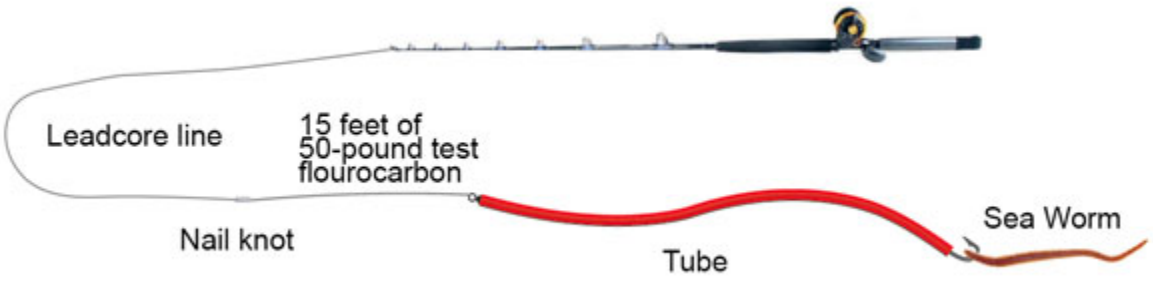

Image from: www.onthewater.com/best-striped-bass-trolling-rigs

Proposed Tube Rig Study

ME DMR and MA DMF are proposing a two-year study (2021/2022) to gather information on the use of tube rigs in the recreational striped bass fishery. The two primary management objectives of this work are:

- Understand the size of the fishing population which participates in the use of tube rigs
- Understand where tube gear hooks on a fish (lip, gills, gut, etc.)

[2] ME exemption language: Rubber or latex tube rigs will be exempt from the circle hook restriction as long as they conform with the following: the lure must consist of a minimum of 8" of latex or rubber tubing with a single hook protruding from the end portion of the tubing where bait may be attached. Use of treble hooks is not allowed with these rigs.

In addition, ME DMR is interested in understanding the potential impacts of the circle hook requirement on Maine's worming industry.

To make this study possible, ME DMR and MA DMF are requesting that Maine's previous circle hook exemption for those fishing with a tube rig be authorized for the two-year duration of the study, either a) in Maine and Massachusetts alone by way of Board approval of an exemption request; or b) coastwide by way of Board action to delay Addendum VI's circle hook implementation date for this particular terminal tackle. This authorization is necessary to allow ME DMR and MA DMF staff, in collaboration with recreational anglers and for-hire operators, to collect pertinent information on the use of tube rigs in the fishery, including participation rates and incidence of deep hooking. It is ME DMR and MA DMF's intent that this allowance for traditional baited tube rigs would expire after two years, unless additional Board action is taken to extend or permanently approve their use.

The proposed study has several components for collecting data including: 1) an angler survey (ME & MA); 2) an angler logbook (ME only); and 3) at-sea data collection (ME & MA).

Angler Survey

In both Maine and Massachusetts, the population of striped bass fishermen using a baited tube rig is unknown. As a result, it is unclear how large of a population is impacted by the Board's recent decision to prohibit a circle hook exemption for tube rigs.

As a first step, both states plan to administer an online survey to recreational fishery participants —both private anglers and for-hire vessel operators—through the use of their respective angler databases (whether that be for recreational permit holders or those in a saltwater registry). Collecting participation information from a broad set of recreational anglers will provide insight into the proportion of the recreational community that uses tube rigs. Questions in the survey would ask private anglers about their knowledge of tube rigs, level of engagement in recreational striped bass fishing, frequency of using tube rigs in the striped bass fishery, and choice of bait; for-hire captains would be asked to provide similar information of the anglers they have taken fishing.

Angler Logbook

As a second component to this study, ME DMR plans to utilize its Volunteer Angler Logbook (VAL) program to collect data on the use of tube rigs in the fishery. The VAL program is primarily aimed at striped bass fishermen in order to collect additional length as well as catch and effort data. In 2021, ME DMR will be expanding the VAL program to include an electronic logbook which recreational anglers will be able to complete online or through an App. Not only does this electronic logbook provide ME DMR the flexibility to easily modify the questions asked, but Maine also believes it will expand the population of recreational anglers who provide data. For reference, a copy of the existing logbook is attached to this proposal. A preliminary list of questions ME DMR plans to add to the VAL program, and their associated management objective, are shown below in Table 1.

ME DMR plans to conduct extensive outreach on the new electronic VAL program in order to promote strong engagement and participation by the recreational sector. Methods of outreach will include list-serve mailings, an announcement on ME DMR's website, outreach at tackle shops, and collaboration with industry associations.

In combination with the broader recreational industry survey, the VAL program should provide important information on the tube rig fishery. As efforts are taken to publicize the new electronic

logbook, ME DMR is conscious that those participating in the VAL program may not represent a balanced cross-section of the recreational fishing community. This may be particularly true if those who fish with tube-and-worm gear are eager to collect data on their fishing practices. The online survey administered by ME DMR will allow for a comparison between the subset of individuals who participate in the VAL program and the broader recreational community. Moreover, the survey results will help ME DMR to understand whether those who participate in the VAL program represent a small or large portion of fishermen who use baited tube rig gear. These two sources of information should also help ME DMR to draw conclusions about the broader impacts of the tube rig fishery.

Table 1: Management objectives and the corresponding preliminary questions to be added to Maine's Volunteer Angler Logbook under ME DMR's proposed study.

Management Objective	Corresponding Questions in Logbook
Understand size of population which participates in the tube-and-worm fishery	Did you use a baited latex or rubber tube rig when fishing? [options for "yes" or "no"]
Understand impacts to the worming industry	If yes, what bait did you use on the tube rig? [options for "seaworm" "artificial including synthetic" and "other"]
Understand where tube and worm gear hooks on a fish (lip, gut, etc.)	Number of fish caught using tube rig Where was the hook set? [options for "lip" "interior mouth" "gill teeth" "other"]

<u>At-sea Data Collection</u>

While logbooks are a cost-effective way (and safe way during Covid) to gather large amounts of data and engage industry, a potential criticism of logbook data is that they are self-reported. To address this concern, ME DMR and MA DMF are developing plans to conduct at-sea sampling of tube rig fishing. Data similar to what is proposed in the VAL program would be recorded, including the number of fish caught, the location of where the hook set on the fish, and the condition of the fish when discarded. Further, the agencies will manufacture/obtain and fish with tube rigs with circle hooks to understand the impact on catch given industry's assertion that the circle hook will not set in the fish. Collecting this second stream of data will provide greater insight into the data collected through Maine's VAL program; the data collected by agency staff will either highlight discrepancies with the data collected in the angler logbooks or it will ground truth what is reported in the logbooks.

MA DMF plans to utilize its own staff and fleet of research vessels to conduct dedicated striped bass fishing trips for at-sea data collection on tube rigs. By employing DMF staff and vessels (rather than collaborating with the for-hire industry as Maine intends), the agency plans to perform this activity in year 1 of the study. Depending on Covid-related impacts to field sampling activities, additional data collection in year 2 may be required to acquire a robust dataset. This research into tube rigs will build upon MA DMF's ongoing Striped Bass Terminal Tackle Study begun in 2020 to evaluate discard mortality rates between circle hooks and J hooks. It is anticipated that the information collected on the hook setting location associated with tube rigs will be able to be compared to that collected on circle hooks and j hooks in that study, as well as prior published studies.

ME DMR has identified a set of funds with which the agency plans to hire charter boat captains to go tube rig fishing and collect the at-sea data. ME DMR plans to focus this on-the-water work in year 2 of the study, largely due to Covid-19. Covid presents many challenges for safely conducting collaborative research, particularly at a time when Covid rates are high and the timeline of the vaccine is uncertain. It is much more likely that in-person collaboration with fishermen will be possible by 2022. Another advantage of partnering with charter boat captains in year 2 is that, based on information from the angler survey and the VAL program, ME DMR may have identified a broader pool of industry members with which to collaborate.

Analysis

Following the two years of the study, ME DMR and MA DMF will analyze the results and compile them in a report. We anticipate that this research program will: 1) estimate the size of the angling public in our states using tube rigs and the frequency and reason for their use; 2) evaluate the incidence of deep hooking associated with traditional baited tube rigs, and compare this to other terminal tackle configurations; and 3) demonstrate whether a circle hook could be used on a tube rig with equivalent success of catch and hook set properties.

The agencies intend to provide this report to the Striped Bass Technical Committee (TC) for their review and comment by the fall of 2022. Following this TC review, ME DMR and MA DMF would present the results to the Board for their consideration at the 2022 Annual Meeting. With this information, the Board can decide whether to take action to extend the exemption for the use of tube rigs for the 2023 fishery or allow the exemption to sunset.

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Massachusetts black sea bass fishery Conservation Equivalency proposal

January 8, 2020

Overview

The Massachusetts Division of Marine Fisheries (DMF) submits this Conservation Equivalency proposal to modify the 2021 black sea bass season for all recreational fishing modes such that the season will begin on a Saturday. The status quo season is set to run from Tuesday, May 18 to Wednesday, September 8, 2021. Two options were examined for season openers: (A) Saturday, May 15 and (B) Saturday, May 22. The corresponding season closure date for each option was selected based on its resulting in an equal or lesser projected harvest than the status quo season (Table 1). DMF seeks approval of both options, one of which would be selected after public comment is solicited in the state. Implementation would occur prior to the season's commencement, with appropriate notification to fishery participants.

Table 1. Status quo and proposed regulations for the 2021 Massachusetts black sea bass recreational fishery.

	Season	Bag Limit	Size Limit
Status quo	May 18–September 8 (114 days)	5 fish	15"
Option A	May 15–September 3 (112 days)	5 fish	15"
Option B	May 22–September 14 (116 days)	5 fish	15"

Introduction

The Mid-Atlantic Fishery Management Council and the Atlantic States Marine Fisheries Commission's Summer Flounder, Scup, and Black Sea Bass Management Board approved status quo recreational fishing measures for 2021 during their December 2020 meeting. However, they specified that they would be willing to review Conservation Equivalency proposals that sought minor adjustments to the fishing season.

Massachusetts requests an accommodation to open the season on a Saturday. The state has had a Saturday opener for the black sea bass fishery since 2013, except for 2020 when changes were expressly prohibited, and there is interest from the fishing community in maintaining this standard. The status quo opening day of May 18 is a Tuesday in 2021; the two closest Saturdays to the status quo opener are proposed. Recent information available to use in the analysis were MRIP harvest data from 2018 and 2019.

Analysis

The status quo opening date of May 18 is a Tuesday and the previous and subsequent Saturdays (May 15 and May 22, respectively) were both examined as potential season openers. The May 15 date requires the end of the season to be truncated to compensate for an additional three Wave 3 equivalent days while the May 22 date results in an end-of-season extension of four Wave 3 equivalent days.

MRIP data from 2018 and 2019 were used to examine the impact of season adjustments, as 2020 data were not available for use due to COVID-19 effects on APAIS sampling. Additional data from years prior to 2018 were not included as Massachusetts' recreational black sea bass season has otherwise not been open in September since 2014[1]. Daily harvest rates by wave were used to equilibrate the status quo and proposed seasons. Because Wave 3 and Wave 5 are unequal in their harvest rates, adjusting the schedule for a season that bridges these waves is not a 1:1 change in days. To reduce impacts of annual variability, average daily harvest rates by wave (the mean over 2018 and 2019) were used. The PSEs for all data used in this analysis were less than 50 (Table 2).

Table 2. Data used in the analyses. The 2018 and 2019 combined data set calculates harvest rate as the average of the 2018 and 2019 harvest rate. The 2018 and 2019 combined PSE was calculated as $PSE_w = \sqrt{\sum_y V_{y,w}}/\sum_y H_{y,w}$ where y is year, w is wave, V is the variance (found in the MRIP estimate files) and H is harvest.

Year	Wave	Harvest (N)	PSE	Open days	Harvest Rate
2018	3	548,602	26.5	43	12,758
	4	92,565	26.5	62	1,493
	5	36,977	42.6	12	3,081
2019	3	306,056	31.3	44	6,956
	4	146,788	21.4	62	2,368
	5	73,749	41.8	8	9,219
2018 & 2019 average	3	427,329	20.4	43.5	9,857
	4	119,677	16.7	62	1,930
	5	55,363	31.3	10	6,150

Notably, in 2019, the harvest rate during Wave 5 (9,219 fish/day) was larger than during Wave 3 (6,956 fish/day). This was not consistent with 2018 where the Wave 3 rate was approximately four times larger than the Wave 5 rate (Table 2). While the 2019 Wave 5 rate is greater than the 2018 Wave 5 rate, the 2019 Wave 3 rate also appears unusually low compared to the 2015–2018 Wave 3 rates that all range between 9,688 fish/day and 13,091 fish/day. The 2018 data are more consistent with a general understanding of the Massachusetts fishery; black sea bass spawn in the spring and early summer months and during this time they aggregate and exhibit high availability to the fishery.

The steps that were used in the analysis are listed below. See Appendix 1 for equations and Table 3 for resulting calculations.

(1) Average daily harvest rates by wave[2] were calculated for the combined 2018 and 2019 MRIP data (Table 2).

[1] MRIP did report harvest during 2017 Wave 5 although the fishery was not open.

[2] See Appendix 3 for an alternative approach to calculating average harvest rate.

(2) The number of Wave 3 days to be accounted for was calculated: this was a deficit of three days for Option A (May 15 opening) and a surplus of four days for Option B (May 22 opening).
(3) The "exchange rate" was calculated as the ratio of Wave 3 average daily harvest rate to Wave 5 average daily harvest rate. Since the harvest rates differ, this allows the number of Wave 5 days to be adjusted on a comparable scale to changes in the number of Wave 3 days.
(4) The number of Wave 5 harvest rate days to be added or subtracted to the end of the season is calculated by multiplying the number of days adjustment to the season during Wave 3 by the exchange rate. As a conservative measure, this number is rounded down when considering adding days to the end of the season and rounded up when considering subtracting days from the beginning of the season.

Option A, assuming a start date of May 15, results in a season that closes on September 3 and lasts 112 days. Option B, the May 22 opening day, results in a season that closes on September 14 and lasts 116 days (Table 3). Each of the proposed seasons are expected to produce total harvest (in numbers) that is conservationally equivalent to the expected Massachusetts landings during the status quo 2021 season (114 days from May 18 through September 8), assuming daily harvest rates are similar to the averaged 2018/2019 rates. Expectations using only 2018 and 2019 data are given in Appendix 2.

Table 3. Summary of calculations to arrive at closure date for alternative opening dates using 2018 and 2019 combined MRIP data (see steps given in the text and Table A1.1). Column names are defined as follows. Opening day: proposed first day of the season. Exchange rate: ratio of harvest rate in Wave 3 to that in Wave 5 (Table A1.1, Step 3). n Day W5: theoretical number of Wave 5 days to add or subtract. n Day W5: actual number of Wave 5 days added or subtracted. Close Date: date of season closure given data set. Season days: number of days total in the proposed season. The status-quo season runs May 18 – Sep 5 and is 114 days.*

Opening day	Exchange Rate	n Day W5*	n Day W5	Close Date	Season Days
A: 5/15/2021	1.6	-4.81	-5	9/3/2021	112
B: 5/22/2021	1.6	6.41	6	9/14/2021	116

These analyses assume that the combined 2018 and 2019 average daily harvest rate by wave represents a reasonable expectation for the daily harvest rate by wave during 2021. Such an assumption is predicated on several characteristics of the fishery being similar to the conditions under which the data were generated such as black sea bass availability, total fishing effort, overall composition and availability of other recreationally targeted species and angler preferences.

Summary

Both Option A (5/15/2021 – 9/3/2021) and Option B (5/22/2021 – 9/14/2021) are expected to result in harvest similar to the expectation under the status quo given the data that were used to produce the estimates (i.e., average MRIP harvest rates for 2018 and 2019 combined). The purpose of using 2018 and 2019 together was to temper uncertainty; the averaging mitigates the impact of some of the annual variability and potential anomalies such as observed in 2019.

Appendix 1

Appendix 1 lists the equations used in the steps listed in the Analysis section of the main text.

Table A1.1. Analysis equations, following steps in the main text.

Step	Equation	Definitions	
1	$r_w = \frac{1}{Y}\sum_y \left[\frac{1}{d_{w,y}} h_{w,y}\right]$	r_w	Average daily harvest rate by wave for combined data set.
		w	wave.
		y	Data year.
		Y	Number of years.
		$h_{w,y}$	Total harvest in numbers during wave w of data year y.
		$d_{w,y}$	Number of open days during wave w of data year y.
3	$x_{w3w5} = \frac{r_{w3}}{r_{w5}}$	x_{w3w5}	Exchange rate ratio (Waves 3:Wave 5)
4	$\tilde{d} = \lfloor \check{d} x_{w3w5} \rfloor$	$\tilde{d}$	Number of days to add/subtract during Wave 5.
		$\check{d}$	Number of Wave 3 equivalent days to be accounted for (negative for May 15th start).
		$\lfloor \dots \rfloor$	Floor function (i.e., round down to nearest integer.

Appendix 2

Appendix 2 expands the analyses to include the projected season lengths using the 2018 and 2019 data individually. This gives a sense for how differences in the harvest rate translate through to the season length calculation and offers a comparison to the analyses above that used the averaged 2018 and 2019 harvest rates. This analysis was slightly more complex because the 2018 data led to a projected season that ends in August which requires also using the Wave 4 daily harvest rates. Thus the analysis steps and the equation table (here Table A2.1) have been expanded.

The steps that were used in the Appendix 2 analysis are listed below. See Table A2.1 for equations.

(1) Average daily harvest rates by wave were calculated for (i) 2018, (ii) 2019 and (iii) 2018 and 2019 (Table A2.1). For (i) and (ii) the total harvest by wave was simply the total harvest in numbers by wave and year divided by the corresponding number of open days that the fishery was open. For (iii) the harvest rate was calculated as the average of 2018 and 2019 harvest rates.
(2) The number of Wave 3 days to be accounted for was calculated: this was a deficit of three days for Option A (May 15 opening) and a surplus of four days for Option B (May 22 opening).
(3) The "exchange rate" was calculated as the ratio of Wave 3 harvest rate to Wave 5 harvest rate. Since the harvest rates differ, this allows the number of Wave 5 days to be adjusted on a comparable scale to changes in Wave 3.
(4) The number of Wave 5 harvest rate days to be added or subtracted to the end of the season was calculated by multiplying the number of days adjustment to the season during Wave 3 by the exchange rate. As a conservative measure, this number was rounded down when

considering adding days to the end of the season and rounded up when considering subtracting days from the beginning of the season.

a. In 2018 Option A (May 15 opening) there were not enough days during Wave 5 to make up for the additional days fished during Wave 3, meaning that Wave 4 days had to also be trimmed from the end of the season. Since the Wave 4 harvest rate differs from that of Wave 5, the following steps were taken.
    i. Calculate the total harvest that needs to be accounted for (i.e., the number of days added to Wave 3 multiplied by the Wave 3 harvest rate).
    ii. Calculate the *remaining* harvest that needs to be accounted for by subtracting expected Wave 5 total harvest (8 days) from the total deficit.
    iii. Divide the remainder by the Wave 4 harvest rate to determine the expected number of Wave 4 days that would be required to harvest the remainder.
b. Add the number of Wave 4 days required to the number of available Wave 5 days (i.e., 8).

The three data sources (2018, 2019 and 2018 & 2019) result in different season lengths because the estimated harvest rates vary. Assuming a May 15 opening day (Option A) the 2018 data alone produce a season that is 99 days long, the 2019 data alone result in a season that is 114 days long and the averaged season length – reported in the main text – was 112 days (Table A2.2). Assuming a May 22 opener, the 2018 data produce a 126 day season, the 2019 data a 113 day season and the average a 116 day season (Table A2.3).

Table A2.1. Analysis equations, following steps in the text. Additional steps are needed for the analysis of the 2018 data alone.

Step	Equation	Definitions	
1	$r_w = \frac{1}{Y}\sum_y \left[\frac{1}{d_{w,y}} h_{w,y}\right]$	r_w	Average daily harvest rate by wave for combined data set.
		w	wave.
		y	Data year.
		Y	Number of years.
		$h_{w,y}$	Total harvest in numbers during wave w of data year y.
		$d_{w,y}$	Number of open days during wave w of data year y.
3	$x_{w3w5} = \frac{r_{w3}}{r_{w5}}$	x_{w3w5}	Exchange rate ratio (Waves 3:Wave 5)
4	$\tilde{d}_{w5} = \check{d} x_{w3w5}$	$\tilde{d}_{w5}$	Number of additional days during Wave 5.
		$\check{d}$	Number of Wave 3 days to be accounted for.
If adding days to Wave 5, stop here and	$\tilde{d} = \lfloor \tilde{d}_{w5} \rfloor$	$\tilde{d}$	Number of days to add or subtract from the end of the season.
		$\lfloor \dots \rfloor$	Floor function (i.e., round down to nearest integer.
4.a.i.	$D = \check{d} r_{w3}$	D	Total Wave 3 deficit that needs to be accounted for.

4.a.ii.	$\dot{D} = D - 8r_{w5}$	$\dot{D}$ 8	Remaining deficit after all possible Wave 5 harvest has been accounted for. Status-quo season closes Sep 8, meaning there are 8 available Wave 5 days.
4.a.iii.	$\tilde{d}_{w4} = \frac{\dot{D}}{r_{w4}}$	$\tilde{d}_{w4}$	Number of additional days to remove during Wave 4.
4.b.	$\tilde{d} = \begin{cases} if\ \tilde{d}_{w5} \leq 8 & \lfloor \tilde{d}_{w5} \rfloor \\ else & 8 + \lfloor \tilde{d}_{w4} \rfloor \end{cases}$		*Note: floor function still used (i.e., rounded down because days are considered negative.*

Table A2.2. Summary of calculations to arrive at closure date for season beginning on May 15. Column names are defined as follows. Data year: year or years used to calculate season length. Exchange rate: ratio of harvest rate in Wave 3 to that in Wave 5 (See A2.1 Step 3). n Day W5: theoretical number of Wave 5 days to add. n Avail Day W5: number of available days in Wave 5 to use (8 since the status quo season runs to Sep 8). n Day W5**: number of actual days that can be added during Wave 5. n Day W5: rounded number of Wave 5 days. Total N Diff: sum of number of fish representing the front-end season change (see Table A2.1 Step 4.a.i). Remain Diff: remaining number of fish that need to be accounted for after using all Wave 5 days (see Table A2.1 Step 4.a.ii). n Day W4*: theoretical number of Wave 4 days to add (see Table A2.1 Step 4.a.iii). n Day W4: rounded number of Wave 4 days. n Day Close: total number of days that need to be closed at the end of the season (i.e., sum of Wave 5 closure days and Wave 4 closure days). Close Date: date of season closure given data set. Season days: number of days total in the proposed season.*

Data Year	Exchange Rate	n Day W5*	n Avail Day W5	n Day W5**	n Day W5
2018	4.14	-12.42	-8	-8.00	-8
2019	0.75	-2.26	-8	-2.26	-3
2018 & 2019	1.60	-4.81	-8	-4.81	-5

Table A2.2 continued.

Total N Diff	Remain Diff	n Day W4*	n Day W4	n Day Close	Close Date	Season Days
-38,275	-13,623	-9.12	-10	-18	8/21/2021	99
-20,867	0	0.00	0	-3	9/5/2021	114
-29,571	0	0.00	0	-5	9/3/2021	112

Table A2.3. Summary of calculations to arrive at closure date for season beginning on May 22. Column names are defined as follows. Data year: year or years used to calculate season length. Exchange rate: ratio of harvest rate in Wave 3 to that in Wave 5 (See Table A2.1 Step 3). n Day W5: theoretical number of Wave 5 days to add. n Day W5: actual number of Wave 5 days to add. Close Date: date of season closure given data set. Season days: number of days total in the proposed season.*

Data Year	Exchange Rate	n Day W5*	n Day W5	Close Date	Season Days
2018	4.14	16.56	16	9/24/2021	126
2019	0.75	3.02	3	9/11/2021	113
2018 & 2019	1.60	6.41	6	9/14/2021	116

Table A2.4. Summary of closure dates and season days by Saturday opener and data source. The status quo season runs May 18 – September 8 and is 114 days.

Data	**Open May 15 (Option A)**	**Open May 22 (Option B)**
2018	Aug 21 (99)	Sep 24 (126)
2019	Sep 5 (114)	Sep 11 (113)
2018 & 2019	Sep 3 (112)	Sep 14 (116)

Appendix 3

The primary analysis calculates the average harvest rate in 2018 and 2019 as the mean of the 2018 and 2019 average harvest. Appendix 3 examines an alternative definition of the mean, defined as the average harvest rate of the combined data set (Table A3.1). The two approaches result in only marginally different season lengths. Using the method in the main text the May 15 starting day season length is 112 days as opposed to 111 using the alternative approach. For the May 22 start the main text method results in a season length of 116 days as opposed to 117 under the alternative (Table A3.2).

Table A3.1. Alternative approaches to calculating average harvest for 2018 and 2019 combined. Refers to the difference in Step 1 in Table A2.1.

Version	Equation	Definitions	
Main text	$r_w = \frac{1}{Y}\sum_y \left[\frac{1}{d_{w,y}} h_{w,y}\right]$	r_w	Average daily harvest rate by wave for combined data set.
		w	wave.
		y	Data year.
		Y	Number of years.
		$h_{w,y}$	Total harvest in numbers during wave w of data year y.
		$d_{w,y}$	Number of open days during wave w of data year y.
Appendix A3	$r_w = \frac{\sum_y h_{w,y}}{\sum_y d_{w,y}}$	*Here h and d represent the sum of the data over both years.*	

Table A3.2. Comparison of closing dates using two different approaches to calculate the mean 2018/2019 harvest rate (see Table A3.1). Type column refers to either the dates in the status quo season or to the method of calculating the mean.

Type	May 15 comparison		May 22 comparison	
	Close date	N day	Close date	N day
Status quo season	9/8/2021	114	9/8/2021	114
Mean of means (main text)	9/3/2021	112	9/14/2021	116
Overall mean (Appendix 3)	9/2/2021	111	9/15/2021	117

NEFMC Activities since December MFC Meeting
(December 11th – February 17th)

No Council meetings during this period. NEFMC meets next January 26-28, 2021. Several final actions are scheduled for January, as noted in the following FMP-specific updates.

General note from the Regional Administrator: with the upcoming change in federal administration, federal register noticing is likely to become delayed. After January 20, 2021, the agency will be unable to publish rules in the Federal Register until a new Secretary of Commerce is appointed.

The Commonwealth is seeking qualified individuals for nomination to the upcoming open obligatory seat on the NEFMC currently held by Dr. John Quinn (terming out). Qualified individuals interested in being considered for nomination by the Governor should contact Julia Kaplan (Julia.Kaplan@mass.gov). Nomination application kits will be made available upon request and are due to DMF on February 5, 2021.

Going FMP or species-by-species, here's a run-down of recent developments and upcoming timelines likely of most interest to members of the MFC:

- **GROUNDFISH**
  - **Assessment Updates & SSC Recommendations**
    - Research track peer review meeting on index-based methods and control rules was held December 7-11.
  - **FW61**
    - Final action on universal sector redfish exemption, last component of FW61, scheduled for January Council meeting
  - **Other 2021 priorities**
    - Council to recommendation 2021 recreational measures for GOM cod, GOM haddock, and GB cod in January
    - Review public feedback and discuss next steps in potential for-hire limited entry program
    - Discuss groundfish ABC control rule revisions, Atlantic cod stock structure

- **SCALLOPS**
  - **FW33**
    - Final action on specifications for FY2021 and FY2022 (default) scheduled for January
  - Review of 2020 GOM surveys, and possible discussion of adding listening sessions for LA leasing program to 2021 work priorities also in January

- **HERRING**
  - **A8**
    - Published January 11; Implementation date of February 10, 2021
    - Establishes ABC control rule that accounts for herring's role in the ecosystem; Prohibits midwater trawling in inshore federal waters from US/CAN border to RI/CT border within 12 nm buffer (20 nm off of Cape Cod)
  - **Other 2021 priorities**
    - Rebuilding
    - Revise Accountability Measures
    - A7 Georges Bank spawning protections

- **SKATES**
  - **A5** scoping document open for comment until February 12, 2021
    - Public hearings will be held January 21, 2021 and February 8, 2021

- **SMALL MESH**
  - Final action on 2021-2023 specifications scheduled for January Council meeting
    - Package will include options for southern whiting possession limits based on mesh size

- **SPINY DOGFISH**
  - No updates

- **MONKFISH**
  - No updates
  - 2021 work includes completing discard review to enable uptake for 2022 specifications process

- **EBFM**
  - Educational workshops postponed until in-person meetings can be held
  - Work on EBFM development will continue in 2021

- **PROTECTED SPECIES**
  - Council to comment on the proposed right whale federal measures in January

Port by Port:
Profiles and Analysis of the Massachusetts Commercial Fishery

January 28, 2021

Port Profile Report

- Urban Harbors Institute (UHI) at UMASS Boston was the lead on the report
- Funded through a 2019 seafood marketing grant award
- Collaborative effort between UHI, DMF, and the Cape Cod Commercial Fishermen's Alliance
- Utilizes DMF permitting and statistical data to quantify commercial activity statewide and at the municipal-level
- Harbormaster and Fishermen surveys were distributed to assess existing commercial fishing infrastructure and infrastructure needs
- Nearing completion

Statewide Statistics

Port	2018 Ex-Vessel Value
New Bedford	$431,019,838
Gloucester	$53,213,326
Chatham	$18,790,198
Boston	$16,422,110
Barnstable	$12,846,065
Fairhaven	$8,413,421
Provincetown	$7,752,074
Wellfleet	$7,735,511
Duxbury	$6,793,342
Sandwich	$6,765,111
Rockport	$6,643,559

Species	2018 Ex-Vessel Value
Scallop, Sea	$373,826,248
Lobster, American	$88,799,297
Oyster, Eastern	$28,388,055
Surf Clam, Atlantic	$17,247,917
Crab, Jonah	$12,475,53
Haddock	$12,304,940
Clam, Ocean Quahog	$11,368,416
Goosefish	$8,452,835
Clam, Softshell	$6,200,167
Flounder, Winter	$5,082,703
Herring, Atlantic	$5,058,901

Top Infrastructure Needs

The following three infrastructure needs were identified in 50% or more of the municipalities surveyed:

- Dredging
- Commercial Dock Space
- Additional Shoreside Parking

Other challenges: crowded boat ramps, conflicts with other users, transient dockage, lack of ice availability, limited space for gear and bait storage, trash disposal, complex permitting process for infrastructure projects, and more.

Resources and Recommendations

A series of resources and recommendations for infrastructure improvements are included in the report, including:

- Ideas for new sources of funding for dredging
- Reassessing commercial and recreational mooring needs in harbors
- Improving existing dockage and shoreside infrastructure
- Dedicated parking for commercial and for-hire fishing businesses
- Improved access to boat ramps

MASSACHUSETTS COMMERCIAL FISHING PORT PROFILES

The Massachusetts Commercial Fishing Port Profiles were developed through a collaboration between the Massachusetts Division of Marine Fisheries, the University of Massachusetts Boston's Urban Harbors Institute, and the Cape Cod Commercial Fishermen's Alliance. Using data from commercial regional permits, the Atlantic Coastal Cooperative Statistics Program's (ACCSP) Standard Atlantic Fisheries Information System (SAFIS) Dealer Database, and harbormaster and fishermen surveys, these profiles provide an overview of the commercial fishing activity and infrastructure within each municipality. The Port Profiles are part of a larger report which describes the status of the Commonwealth's commercial fishing and port infrastructure, as well as how profile data can inform policy, programming, funding, infrastructure improvements, and other important industry-related decisions.

For the full report, visit:

Commonwealth of Massachusetts
DIVISION of MARINE FISHERIES

UMASS BOSTON
URBAN HARBORS INSTITUTE
UNIVERSITY OF MASSACHUSETTS BOSTON

CAPE COD COMMERCIAL FISHERMEN'S ALLIANCE

Key Terms:

Permitted Harvesters: Commercially permitted harvesters residing in the municipality

Vessels: Commercially permitted vessels with the municipality listed as the homeport

Trips: Discrete commercial trips unloading fish or shellfish in this municipality

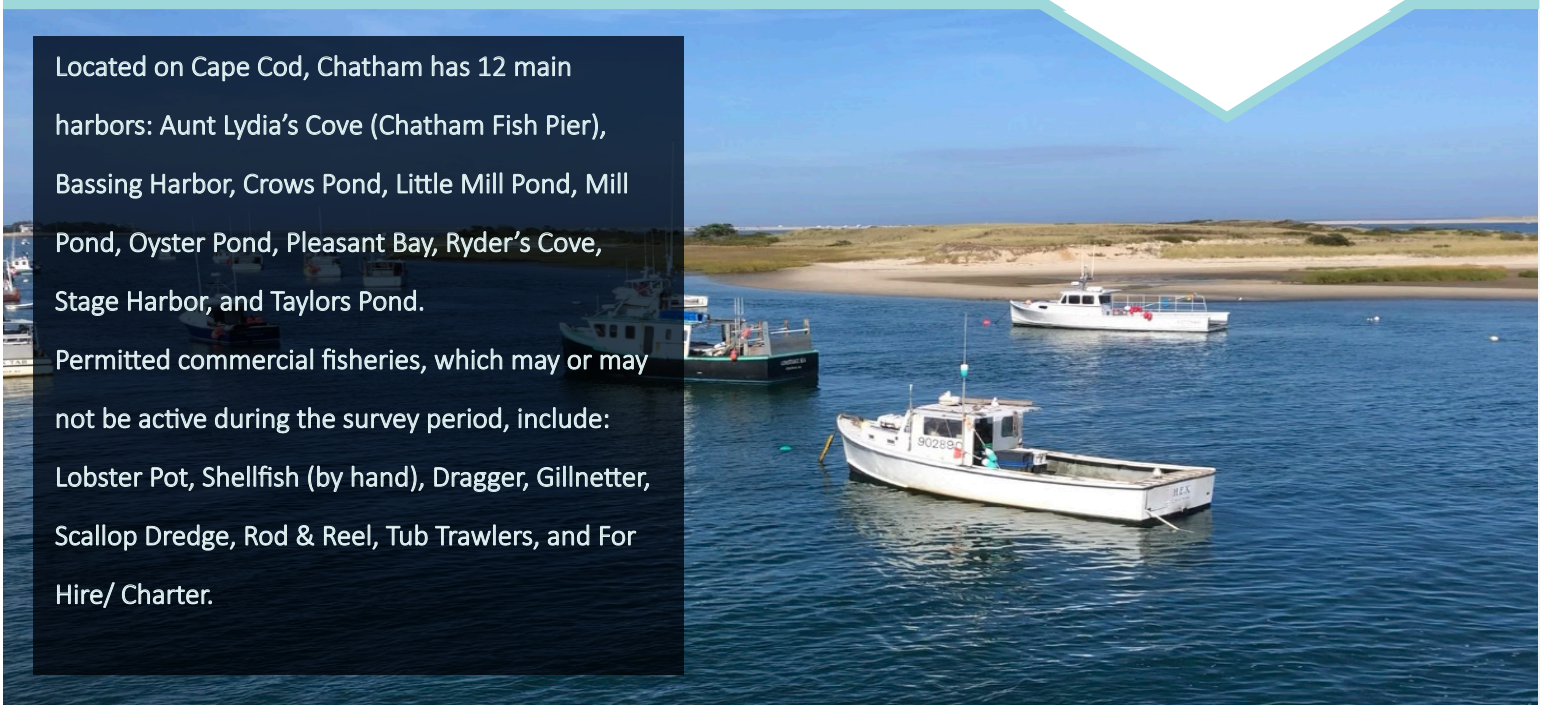
Active Permitted Harvesters: Commercially permitted harvesters with at least one reported transaction in a given year

Active Dealers: Permitted dealers with at least one reported purchase from a harvester in a given year

Ex-Vessel Value: Total amount ($) paid directly to permitted harvesters by dealers at the first point of sale

CHATHAM

Port Profile



Located on Cape Cod, Chatham has 12 main harbors: Aunt Lydia's Cove (Chatham Fish Pier), Bassing Harbor, Crows Pond, Little Mill Pond, Mill Pond, Oyster Pond, Pleasant Bay, Ryder's Cove, Stage Harbor, and Taylors Pond.

Permitted commercial fisheries, which may or may not be active during the survey period, include: Lobster Pot, Shellfish (by hand), Dragger, Gillnetter, Scallop Dredge, Rod & Reel, Tub Trawlers, and For Hire/ Charter.

2018 Overview

DMF Permitting and Statistics Data; ACCSP Data Warehouse

Chatham's commercial fishery had:

193 permitted harvesters with a Chatham address

315 vessels with a Chatham homeport

27,379 trips landing in Chatham

615 active permitted harvesters landing in Chatham

46 active dealers purchasing in Chatham

Commercial harvesters landed the following in Chatham in 2018:

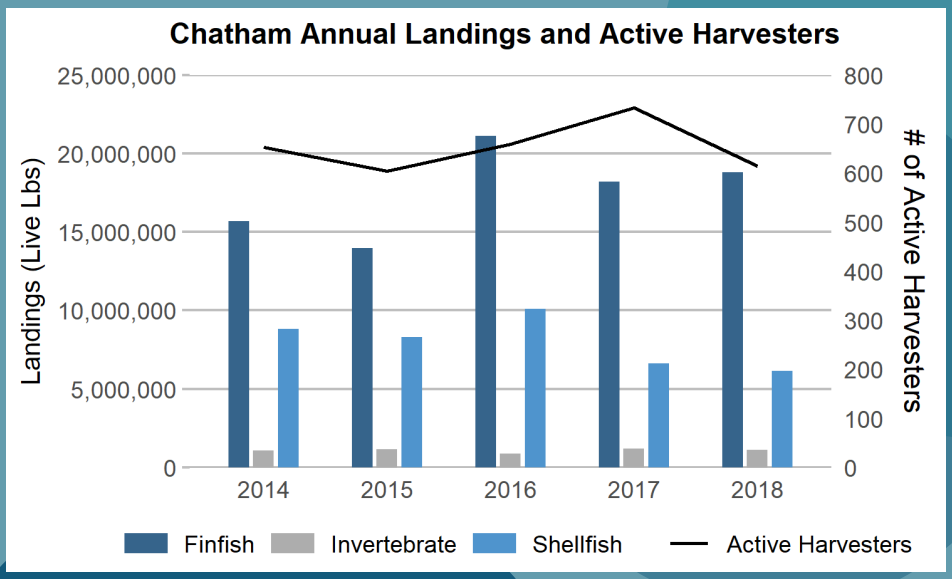
26,006,673 pounds of catch with an ex-vessel value of **$18,967,799**

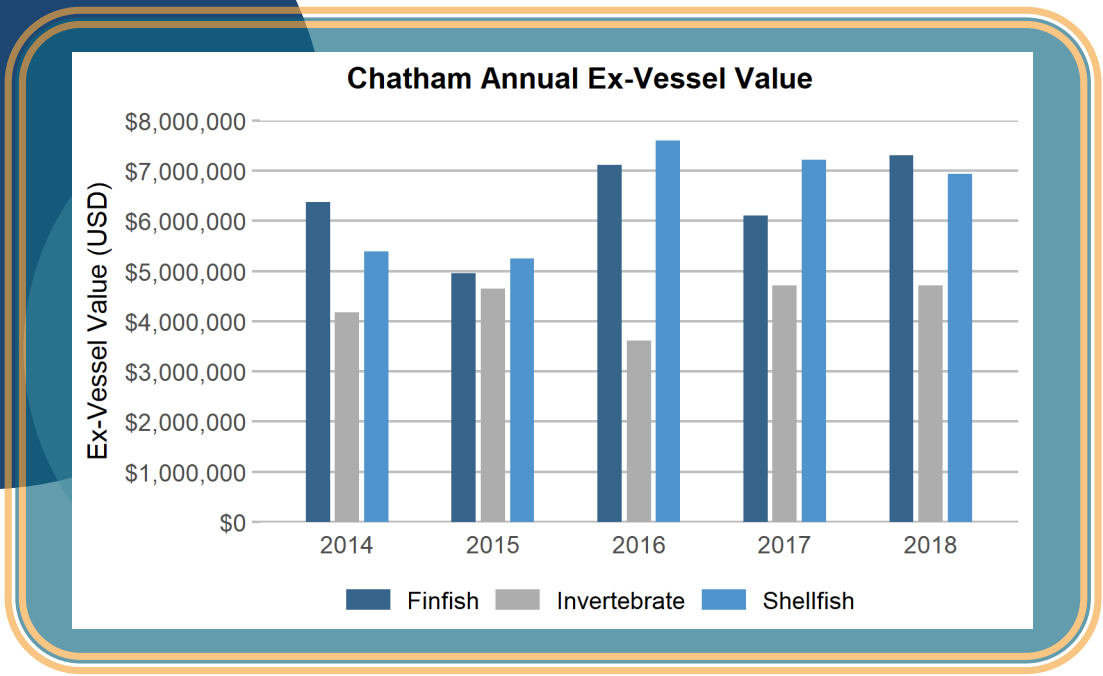
The top-ranked species, by dollar value, landed between 2014-2018 included:

American Lobster
Sea Scallop
Winter Skate

5 Year Trends in Commercial Landings and Value

Source: DMF Permitting and Statistics Data; ACCSP Data Warehouse





* = CONFIDENTIAL, as fewer than three harvesters, vessels, and/or dealers reported in this municipality.

Status of the Commercial Fishing Industry

Source: 2019 Harbormaster and Harvester Survey Data

Chatham's commercial fishing fleet consists of mostly non-trailered vessels, with some trailered vessels. In the last 10 years, the number of non-trailered commercial fishing vessels operating out of this harbor has remained the same due to less shellfishing boats because of the high cost of living in Chatham, but more seasonal vessels. On the other hand, the number of commercial fishing trailered vessels has increased due to more part-time fishermen, particularly part-time striped bass fishermen.

Commercial Fishing Infrastructure

Infrastructure upgrades in last ten years:

- Dredging
- New dock, and some dock/bulkhead repair
- Fish pier observation deck
- Pumpout stations

Current infrastructure:

Challenges

- Lack of docking space and moorings
- Shallow water/need for dredging
- Limited parking
- Lack of transient port accomodations
- In need of better ramps/ramp repair

Needs

- Dredging
- Additional dock space and moorings
- Parking
- Ramp maintenance

Infrastructure dedicated solely to commercial fishermen:

- Moorings: None
- Slips: None
- Broadside berthing: 6 feet

In 2018, the municipality charged for the following services:

- Moorings: $2.50/foot for all commercial vessels

Type of Infrastructure	Available?
Ice	✓
Bait storage	
Trash disposal	✓
Commerical offloading	✓
Hoist	✓
Dock space	✓
Gear storage	
Mooring space	✓
Fueling stations	✓
Vessel repair	✓
Launch ramp	✓
Parking for fishermen	✓
Parking for seafood trucks	✓
Other	

✓ = Available

MASSACHUSETTS COMMERCIAL FISHING PORT PROFILES

The Massachusetts Commercial Fishing Port Profiles were developed through a collaboration between the Massachusetts Division of Marine Fisheries, the University of Massachusetts Boston's Urban Harbors Institute, and the Cape Cod Commercial Fishermen's Alliance. Using data from commercial regional permits, the Atlantic Coastal Cooperative Statistics Program's (ACCSP) Standard Atlantic Fisheries Information System (SAFIS) Dealer Database, and harbormaster and fishermen surveys, these profiles provide an overview of the commercial fishing activity and infrastructure within each municipality. The Port Profiles are part of a larger report which describes the status of the Commonwealth's commercial fishing and port infrastructure, as well as how profile data can inform policy, programming, funding, infrastructure improvements, and other important industry-related decisions.

For the full report, visit:

Commonwealth of Massachusetts
DIVISION of MARINE FISHERIES

UMASS BOSTON
URBAN HARBORS INSTITUTE
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CAPE COD COMMERCIAL FISHERMEN'S ALLIANCE

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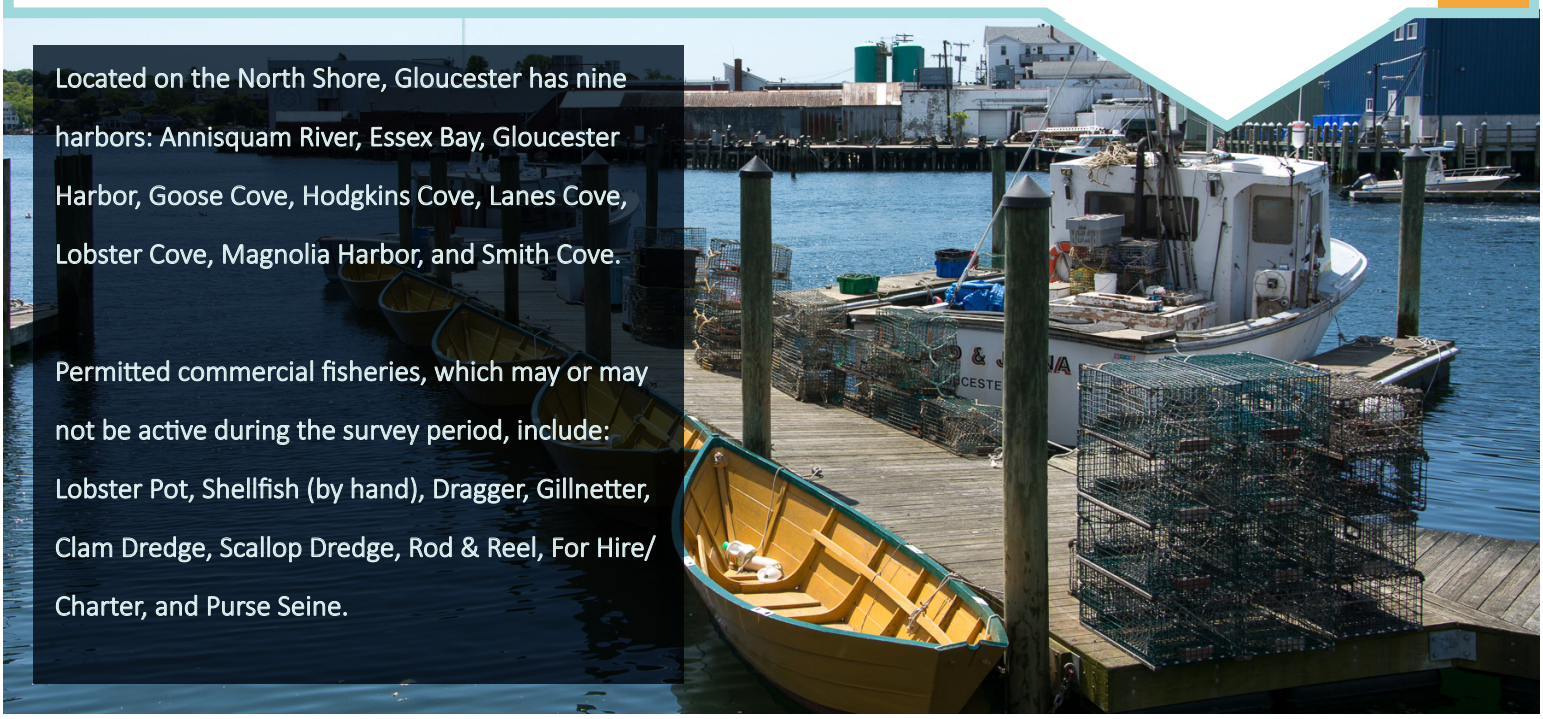
Ex-Vessel Value: Total amount ($) paid directly to permitted harvesters by dealers at the first point of sale

GLOUCESTER

Port Profile



Located on the North Shore, Gloucester has nine harbors: Annisquam River, Essex Bay, Gloucester Harbor, Goose Cove, Hodgkins Cove, Lanes Cove, Lobster Cove, Magnolia Harbor, and Smith Cove.

Permitted commercial fisheries, which may or may not be active during the survey period, include: Lobster Pot, Shellfish (by hand), Dragger, Gillnetter, Clam Dredge, Scallop Dredge, Rod & Reel, For Hire/ Charter, and Purse Seine.

2018 Overview

DMF Permitting and Statistics Data; ACCSP Data Warehouse

Gloucester's commercial fishery had:

436 permitted harvesters with a Gloucester address

446 vessels with a Gloucester homeport

19,638 trips landing in Gloucester

607 active permitted harvesters landing in Gloucester

87 active dealers purchasing in Gloucester

Commercial harvesters landed the following in Gloucester in 2018:

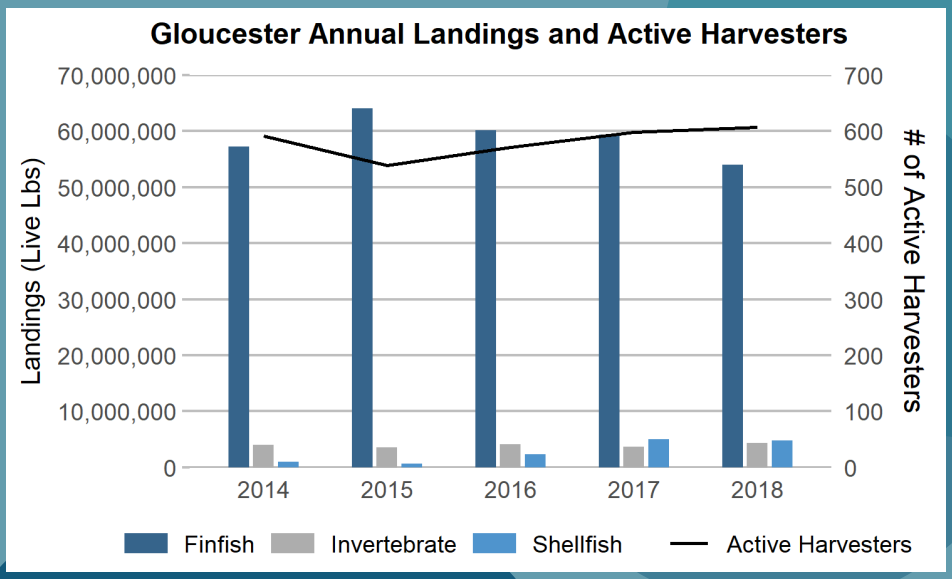
63,098,659 pounds of catch with an ex-vessel value of **$53,210,608**

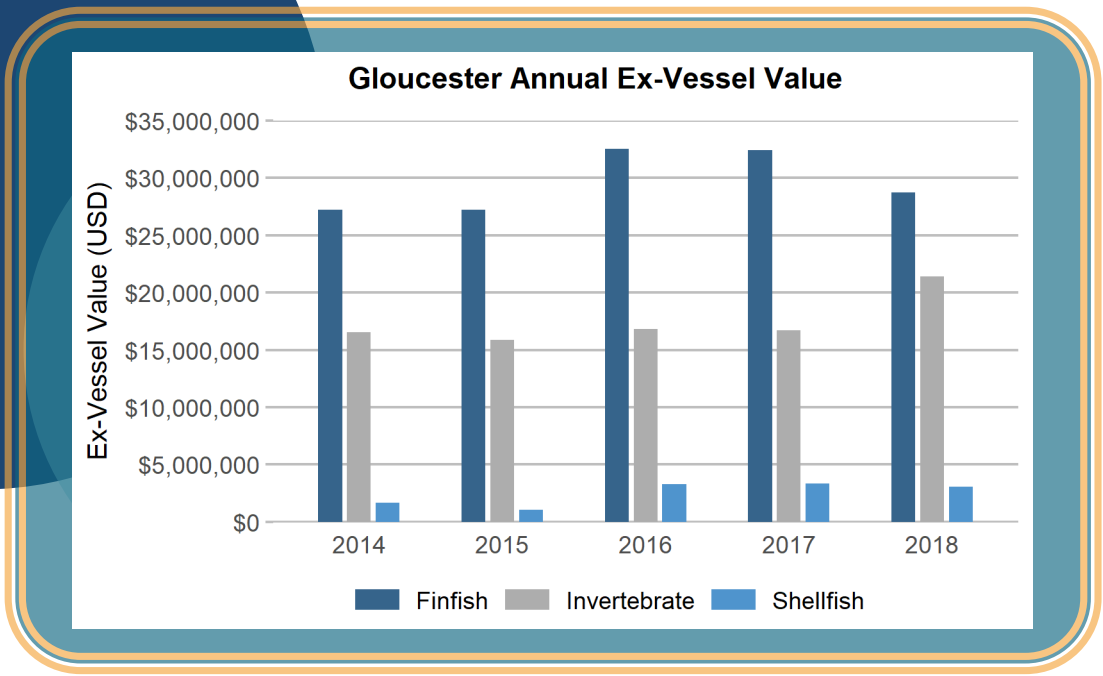
The top-ranked species, by dollar value, landed between 2014-2018 included:

American Lobster
Atlantic Sea Herring
Haddock

5 Year Trends in Commercial Landings and Value

Source: DMF Permitting and Statistics Data; ACCSP Data Warehouse





* = CONFIDENTIAL, as fewer than three harvesters, vessels, and/or dealers reported in this municipality.

Status of the Commercial Fishing Industry

Source: 2019 Harbormaster and Harvester Survey Data

The Gloucester commercial fishing fleet consists mostly of non-trailered vessels, with some trailered vessels. In the last ten years, Gloucester has experienced a decline in its groundfisheries. Additionally, the number of non-trailered vessels has decreased, while the number of trailered vessels has increased.

Commercial Fishing Infrastructure

Infrastructure upgrades in last ten years:

- Travel lift
- Bridge repairs
- Dredging

Current infrastructure

Challenges

- Limited dock space and moorings
- Lack of docking space
- Shallow water/need for dredging
- Permitting process for infrastructure
- Crowded pier
- Lack of transient port accomodations

Needs

- More piers and docks
- Gear and bait storage
- Additional parking
- Public hoist and more unloading space
- Dredging

Infrastructure dedicated solely to commercial fishermen:

- Moorings: None
- Slips: 24 commercial slips
- Broadside berthing: State Fish Pier

In 2018, the municipality charged for the following services:

- Moorings: $8/foot per year (residents); $10/foot per year (non-residents)
- Slips: $3.75/foot per month
- Transient dockage: $40/night
- Launch: $8/day or $75/season

Type of Infrastructure	Available?
Ice	✓
Bait storage	
Trash disposal	
Commerical offloading	✓
Hoist	✓
Dock space	✓
Gear storage	✓
Mooring space	✓
Fueling stations	✓
Vessel repair	✓
Launch ramp	✓
Parking for fishermen	✓
Parking for seafood trucks	✓
Other	

✓ = Available

NSSP Mooring Area Assessment

- Proposal 17-100 submitted by Mike Hickey in 2017
- Passed ISSC - October 2019
- New requirement published in 2019 NSSP revision last October
  - Mooring Areas must be delineated with more than 20 boats
  - Mooring areas must be classified as Conditionally Approved or below
  - Pollution Assessment now required of these mooring areas
  - Boats are a potential and direct source of pollution
  - If the mooring area is deemed a pollution source, justification needed for OPEN status
  - If a pollution source dilution analysis required to determine if impact to adjacent waters
  - If calculation indicates adjacent waters negatively impacted – must be CLOSED
  - Areas may be reopened once boats are pulled for winter and assessment determines area is not a pollution source

Steps

- DMF Workgroup established
  - Mooring Area Appraisal Form finalized - online and hard copy
  - Mooring Area db will be developed from online form
  - GIS mooring area layers are now being populated and drawn
  - Mapping the mooring areas
    - Use town GIS data if available
    - Use aerial imagery if no town data available
  - Cluster mooring points
  - Create new classification areas w/input from municipalities (some on-site)

Wellfleet

Steps – con’t

- Areas are assumed to be CLOSED to shellfish harvest during boating season
- Still assessing criteria which will allow areas to remain OPEN
- Prioritized areas are based on prior FDA evalution
  - BB3-Westport, CCB13.3-Wellfleet*, CCB42.1-Plymouth*, CCB45-Duxbury, N4-Plum Island Sound, N7-Essex Bay, N9-Annisquam River, SC27-Hyannis Harbor, SC42-Chatham*, V19.1-Edgartown*
- First reclassifications of prioritized areas in next week

What are the concerns?

- DMF wants to define mooring areas, buoy to buoy
  - This should limit closures, if necessary, to mooring area proper avoiding adjacent potentially productive waters and flats
    - For example –
      - on North Shore intertidal softshell clam flats
      - on Cape Cod subtidal lease sites are often adjacent to mooring areas

- Downgrade to Conditionally Approved may preclude trade w/EU

What can be done?
Potential Mitigation – specifics still unknown

- Limit impacts and closures - need to reduce the occupancy and discharge rates … but how?

- *Eliminate small/no MSD vessels from dilution calculations*
- *Ensure adequate pump-out capacity*
- *Municipal regulations*
  - *Regulate overnight occupancy*
  - *Fines for discharge of sewage (and gray water?)*
  - *Move moorings away from important/open shellfish growing areas*

Potential Mitigation - con’t

- *Municipal and State enforcement of state and local NDZ regs*
  - *with documentation*
  - *Reviewed and verified by DMF*
- *Segregation of boats – MSD v. no MSD*
- *Municipalities - move aquaculture activity out of mooring areas*
- *Municipalities – migrate lease sites away from marinas/mooring areas (and other point sources)*
- *Municipalities – move moorings away from important / open shellfish flats*

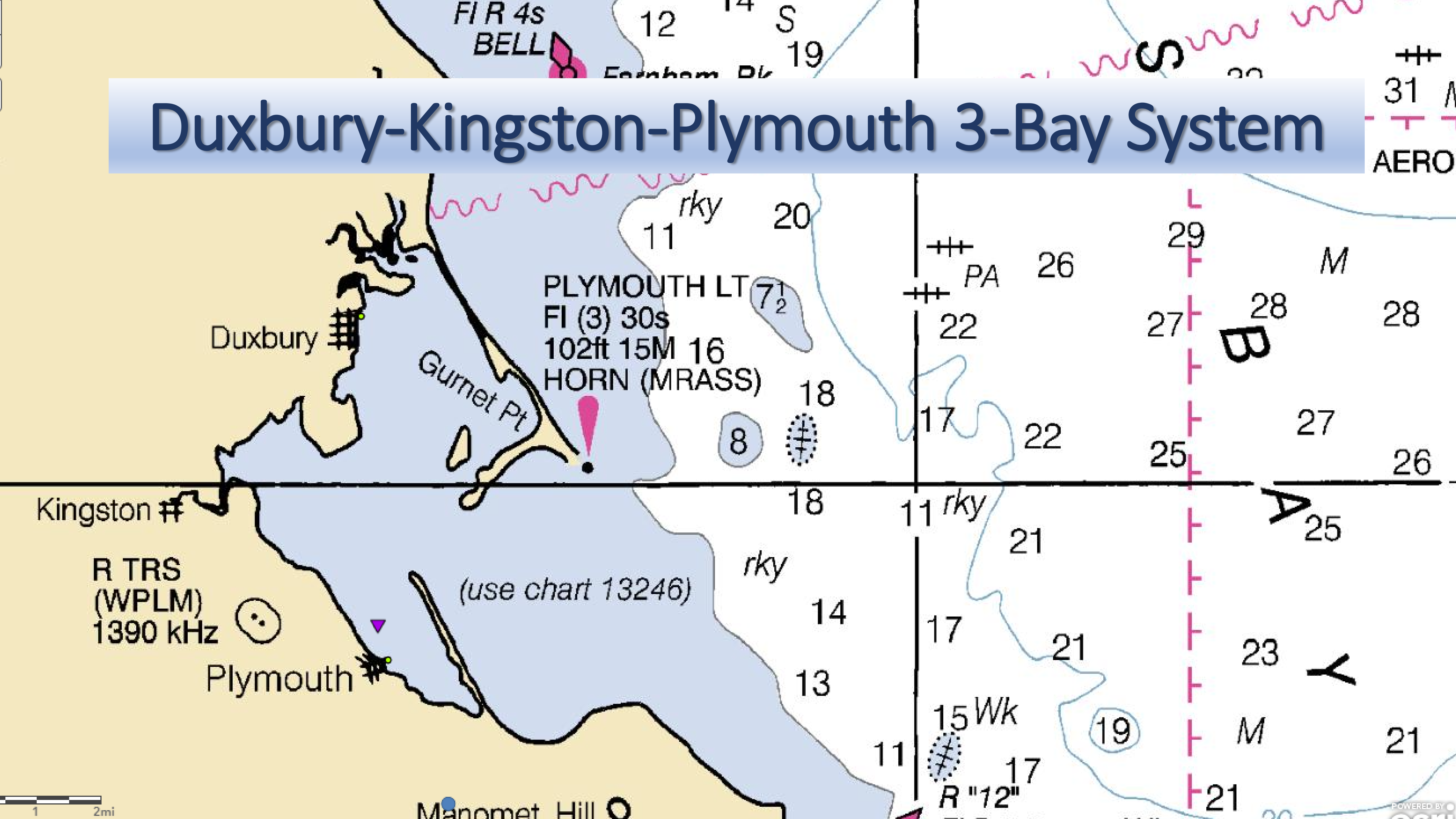
2019 NSSP – *page 63*

- http://www.issc.org/nssp-guide

- https://www.fda.gov/food/federalstate-food-programs/national-shellfish-sanitation-program-nssp

Questions

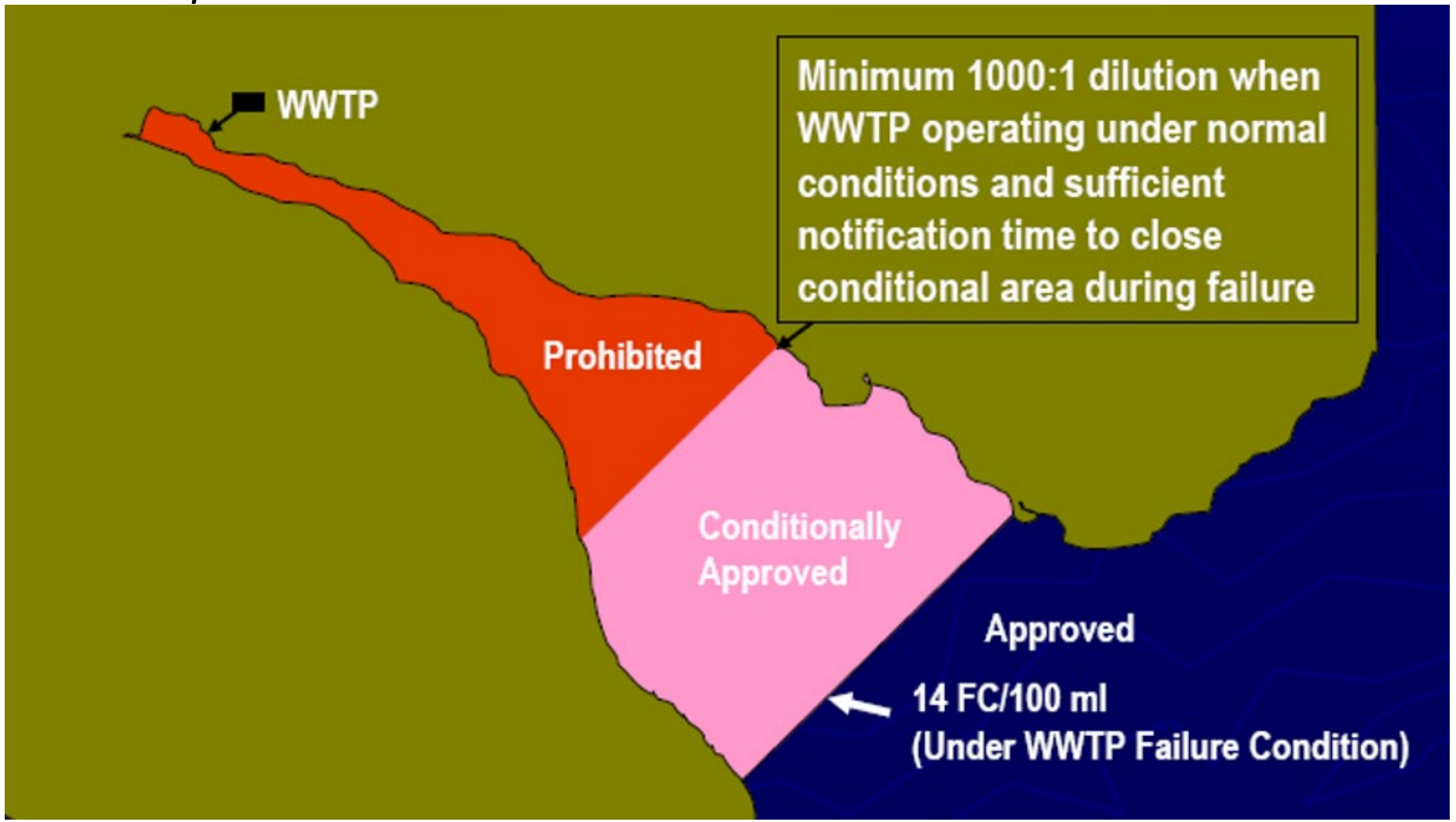
Duxbury-Kingston-Plymouth 3-Bay System



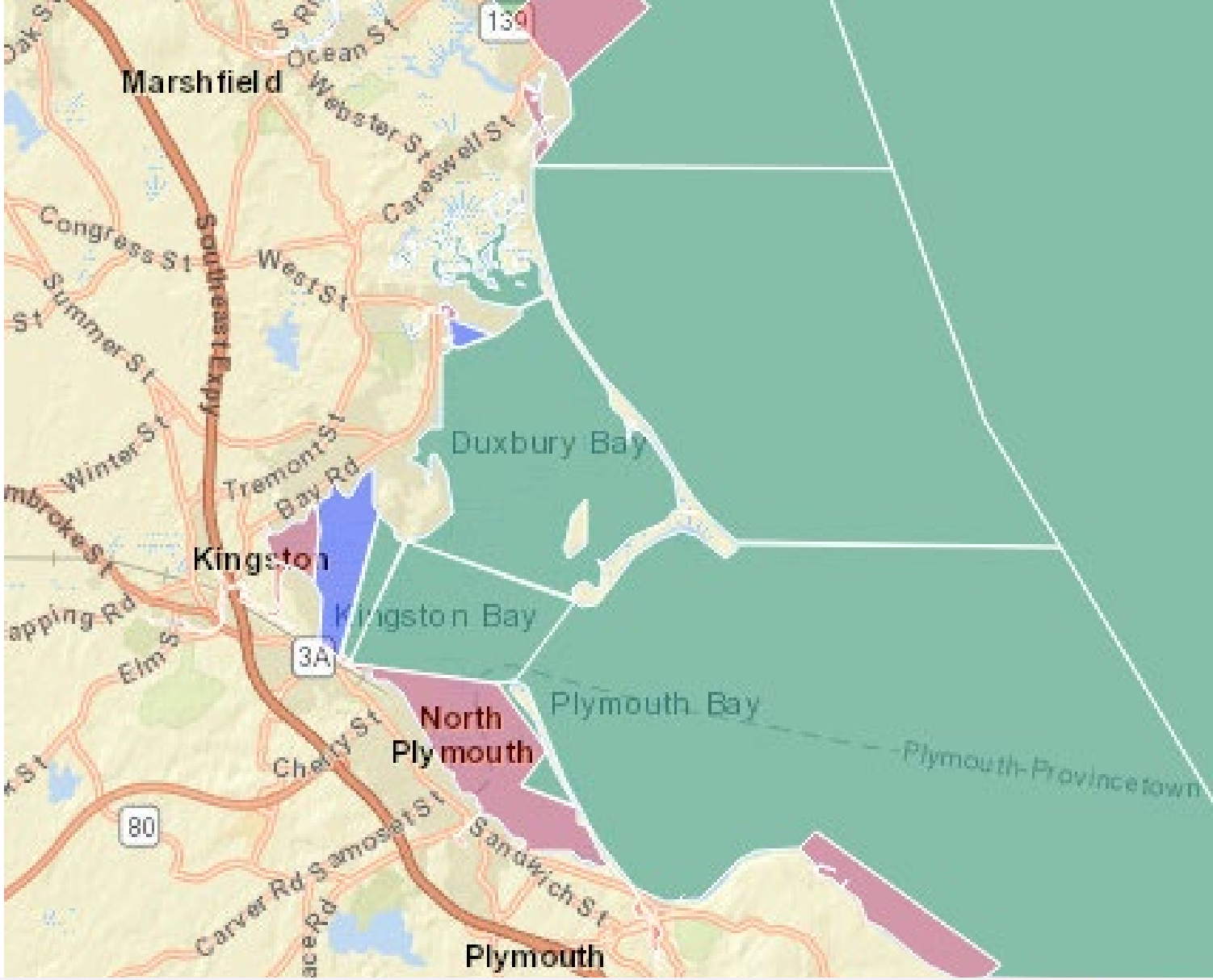
Duxbury-Kingston-Plymouth 3-Bay System

- June 2018 DMF-FDA Plymouth WWTP Dye Study
- Executive Summary provided in January 2020
- NSSP Model Ordinance Requirements
- Mandatory Closed Safety Zones at 1000-1 dilution line
  - May result in expanding Prohibited Closed Safety Zone
- Conditional area within 100K-1 dilution line
  - Reclassification required around WWTP with CSZ abutting Approved areas
  - Result in additional documentation and monitoring by DMF

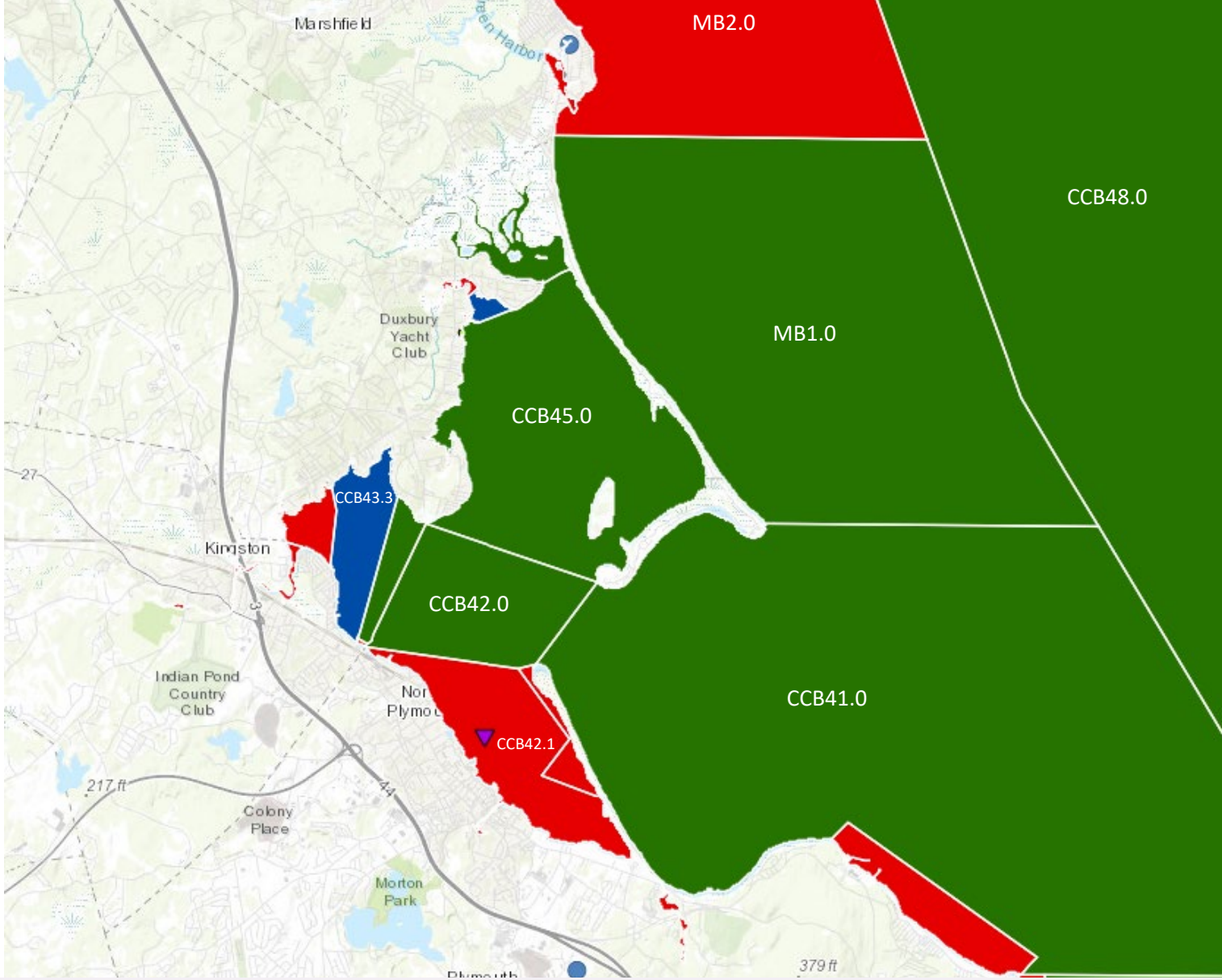
For Example


WWTP
Minimum 1000:1 dilution when WWTP operating under normal conditions and sufficient notification time to close conditional area during failure
Prohibited
Conditionally Approved
Approved
14 FC/100 ml
(Under WWTP Failure Condition)

June 2018

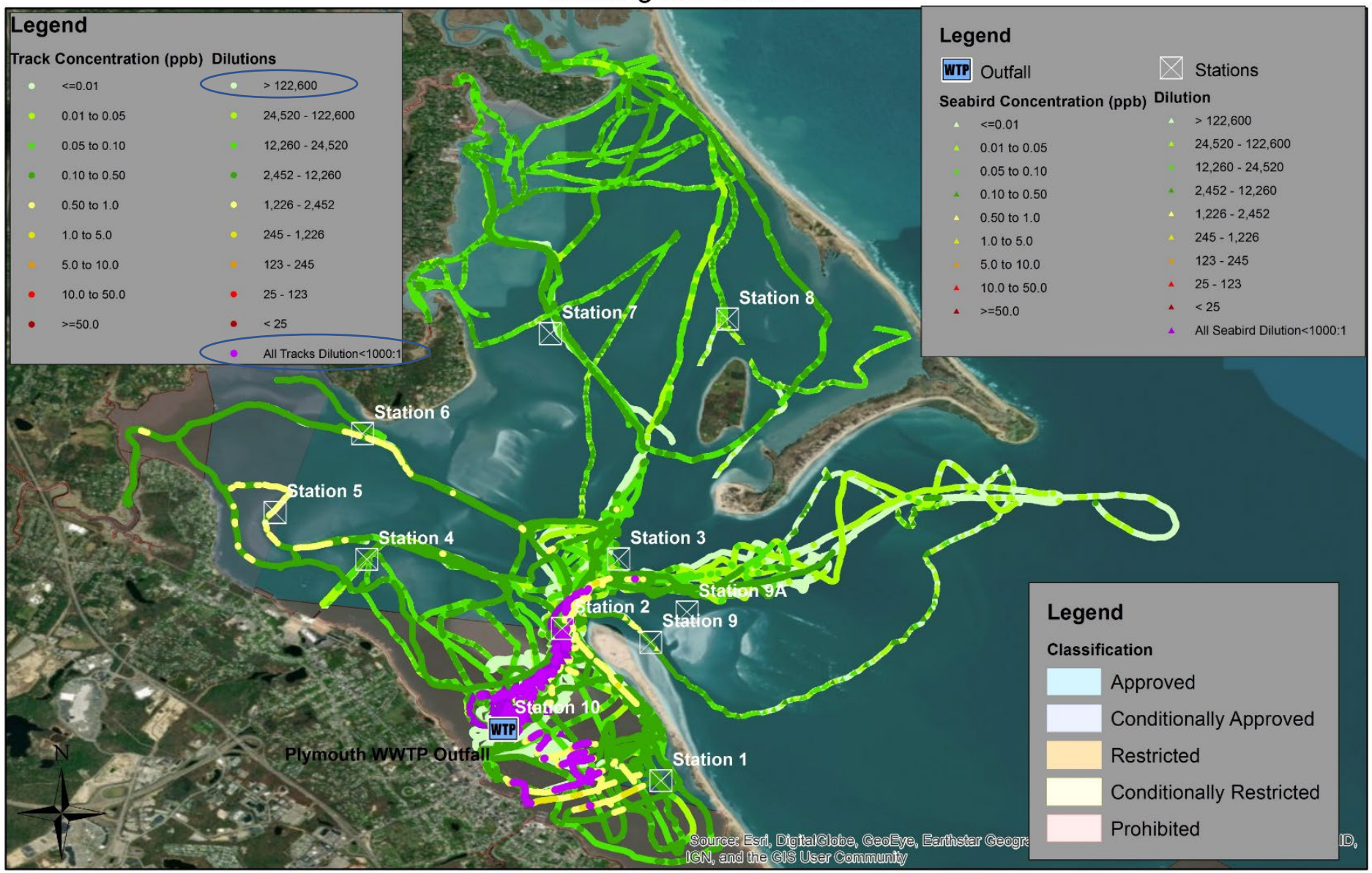

Marshfield
Ocean St
Webster St
Careswell St
Congress St
West St
Summer St
Winter St
Tremont St
Bay Rd
Kingston
Duxbury Bay
Kingston Bay
Plymouth Bay
North
Plymouth
Plymouth-Provincetown
Elm St
Cherry St
Samoset St
Sandwich St
Carver Rd
Plymouth
139
3A
80

January 2021



Plymouth, MA Concentrations & Dilutions 4-day Accumulated

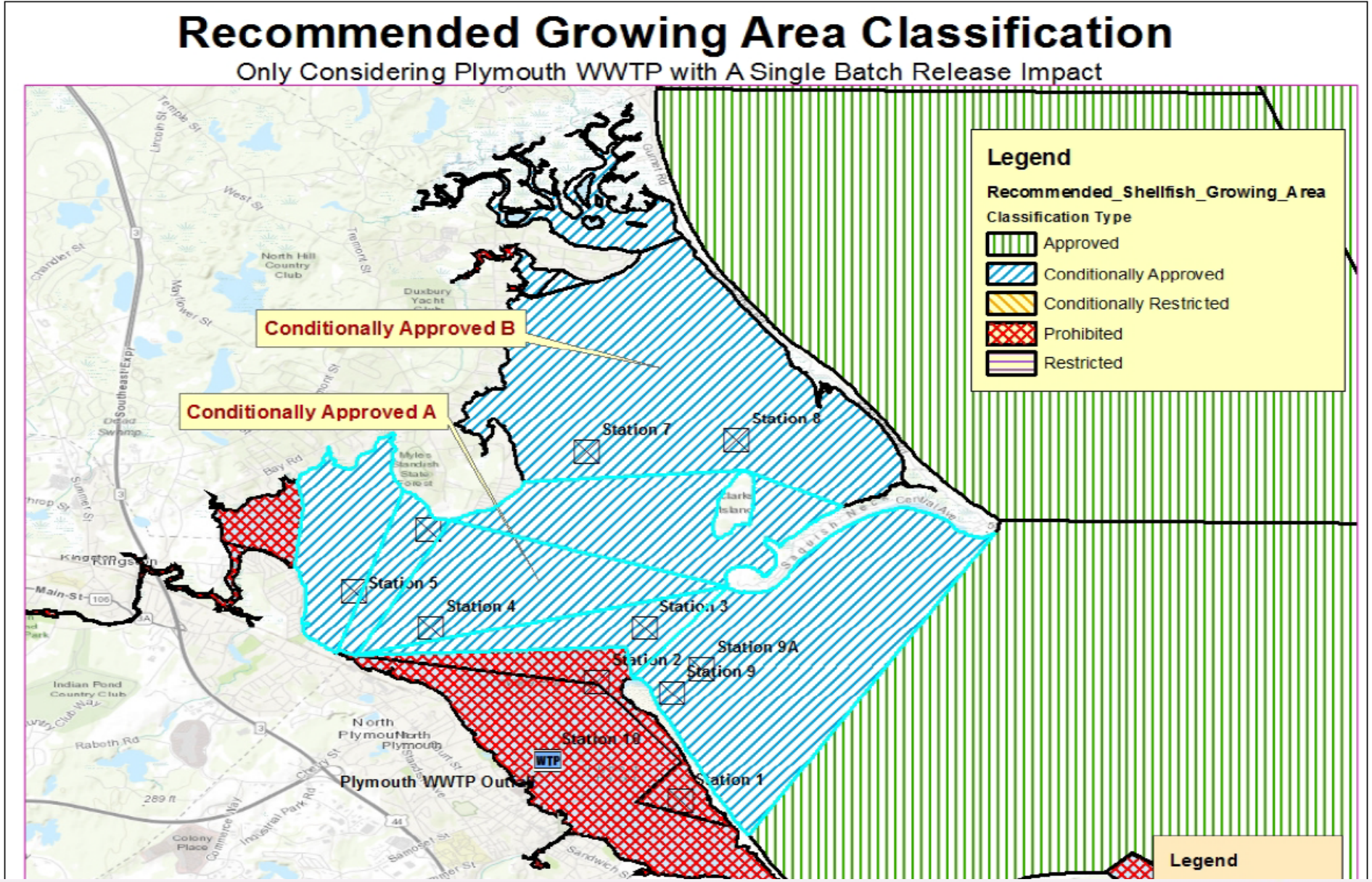
Tracking and Seabird



FDA

0 0.475 0.95 1.9 2.85 3.8
Miles

FDA Proposed



FDA January 2020 Executive Summary & Recommendation

Summary of Conditional Approved Areas Impacted by Plymouth WWTP Performance with Various Malfunction Or Failure Conditions

Conditionally Approved Areas Impacted by Plymouth WWTP	Raw Sewage with **ANY** Volume	Partially Treated Sewage **<200,000 gallons**		Partially Treated Sewage **>200,000 gallons**	
		SBR settling issues **OR** loss of disinfection	SBR settling issues **AND** loss of disinfection	SBR settling issues **OR** loss of disinfection	SBR settling issues **AND** loss of disinfection
Conditionally Approved A	**Closed**	**Closed**	**Closed**	**Closed**	**Closed**
Conditionally Approved B (north part of CCB 45.0)	**Closed**	**Open**	**Closed**	**Closed**	**Closed**

Note: Conditionally Approved A includes:*

- *Kingston Bay (CCB 43.3 and CCB 43.1)*
- *Plymouth Harbor (CCB 42.0)*
- *Plymouth Bay (CCB 41.0)*
- *South of Duxbury Bay (South part of CCB 45.0)*

FDA January 2020 Executive Summary & Recommendation

Next Steps

- FDA is providing raw data for DMF in-house analysis
- Apply GIS tool for more accurate volumetric calculations to set 1000-1 and 100K-1 dilution lines
- Need additional fecal coliform testing of influent, pre-disinfection and effluent during high flows and plant upset
- Viral indicator (Male Specific Coliphage/MSC) can be used to demonstrate plant performance

Options for Future

- Plymouth WWTP feasibility study for inland discharge
  - discharge to remain?
- Offshore transplant to Approved Area???

http://www.issc.org/nssp-guide

Section IV Guidance Documents – Chapter II. Growing Areas
Starting on Page 287

.19 Classification of Shellfish Growing Waters Adjacent to Waste Water Treatment Plants

Questions

Plymouth Duxbury Kingston
Shellfish Growers Association
PO Box 2764
Duxbury, MA 02331

January 27, 2021

Daniel J. McKiernan, Director
Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, MA 02114

Mail, FAX and Email to dan.mckeirnan@state.ma.us

RE: Proposed Reclassification in the Three Bay System

Dear Director McKiernan,

As you know, DMF conducted a zoom question and answer meeting on January 12 relative to the proposed reclassification of the 3 Bay system for Duxbury-Kingston-Plymouth Bays.

At the conclusion of the presentation, where the results of the 2018 dye study were summarized and the National Shellfish Sanitation Program Model Ordinance was revealed, most of the 50 growers in attendance were left stunned to learn that the area where we have worked so hard to build an industry was about to be crippled by what we contend is an arbitrary reclassification.

As we are collectively reeling from this devastating news, there are several areas where the reason for the reclassification remains unclear. We implore you to resist the pressure from the FDA in order to allow the people most affected by the change to be heard.

The growers and wholesalers in the Duxbury-Plymouth-Kingston bay system are collectively one of the largest employers in the area. This is presently a 12 million dollar industry, and growing. In Duxbury alone, only the school district has more employees. In a time of unprecedented social and economic upset due to the pandemic, restricting our ability to take advantage of burgeoning markets is nothing short of criminal.

Proposing a reclassification during a pandemic and pursuant to the suspect National Shellfish Sanitation Program Model Ordinance seems to have occurred without fully vetting the issues and involving the industry as a whole. We view this as a violation of our trust in the administrative branch.

Why is there an urgency to impose changes? Why weren't we informed of the standards utilized in the "study"? Why was there a lack of input from those who would be most affected by such a change?

This so-called reclassification was established on a one time simple, non-scientific "study" of the bay. Reliance on such a threshold study is an obvious rush to judgment and is not supported by any identifiable scientific standards.

We are demanding that a pause be initiated in the reclassification process. A few of the reasons are as follows:

- Currently, in the event of any discharge of untreated effluent, as last happened several years ago, MA General Laws, Chapter 130, Section 74A, gives the DMF authority to prohibit the taking, selling or possession of shellfish from approved, permitted areas. DMF currently has absolute power to suspend and to resume activity in approved growing areas, which they have successfully employed in the past without jeopardizing public health or safety;

- Failure to police the underlying problem, i.e., by not demanding that untreated spills be immediately enjoined, leaves the industry under the proverbial "*Sword of Damocles*". The Commonwealth is not protecting our industry, but rather is sourcing out a "solution" that does not address the problem. We should be, and will be demanding that the MA Attorney General and the U.S. Attorney force the Town of Plymouth from allowing raw sewage to escape into the bay;

- This unnecessary action will present no public safety changes and no response time changes. It will simply be an unnecessary government oversight with DMF pandering to the whims of the FDA;

- Reclassifying the bays as "conditional" places the entire industry under a cloud of suspicion that the bays are not pristine. This will immediately harm the marketability of our local product and our farm's value, placing an unnecessary financial burden on our industry. We suggest a 200- 300 yard *conditional area* outside the permanent closer. This will demonstrate we are addressing FDAs concern for Mass to add a conditional area outside the permanent closure -as suggested. (FDA's quick dye study suggests this would satisfy the high levels of concern) This may also gain needed time for MA DMF to conduct a better study, and a dye that has

similar density and drifting characteristics of particulates of concern;

- The potential discharge events that are of concern are in fact a rarity, the last having occurred years ago. As it presently stands, If there is a release (there is a 4 hour window until it reaches the end of the pipe), the harbormasters all have the growers numbers and would be the first to notify and would immediately suspend harvesting and sales. Presently, in such a discharge event, ALL have been closed down anyway!! We don't need a bureaucratic program in place to effectuate a suspension of activities that would otherwise happen anyway;

- We need the town of Plymouth to address their Water treatment issues (as they are planning to place it upland- ending Bay discharge equals a cleaner bay for all areas!!), and begin the process of implementing a ($50K) daily fine for emergency closures. Providing more time with a more sensible conditional closure (as mentioned above) so they can get their act together with minimal effect on all;

- This so-called reclassification was established on a one time simple, non-scientific "study" of the bay. Reliance on such a study by DMF is an obvious rush to judgment and is not supported by any identifiable scientific standards.

We ask that you continue your efforts to reach a reasonable compromise with the FDA and allow us the time to combat the results of the study. In the past, DMF had a great advocate in the voice of Mike Hickey. Now that Mike has retired, FDA sees this as an opportunity to attempt to further an agenda that we all know is flawed. We need to delay this during the pandemic and find a sensible "workable" solution for all parties to be successful.

Thank you for your attention to this serious matter.

Sincerely,

John E. McCluskey
Duxbury Oyster Company, LLC
508-941-9333

cc:
PDKGS Members
DMF Board Members
Rep. Josh Cutler
Sen. Patrick O'Connor
Sen. Susan Moran
Rep. Kathy LaNatra
Sen. Michael Brady
Congressman William Keating
Congressman Stephen Lynch
Maura Healey, MA Atty. General
Duxbury Board of Selectmen
Plymouth Board of Selectmen
Kingston Board of Selectmen
Harbormasters—Dux Ply and Kingston
Renee Reade, Duxbury Town Manager
Plymouth Town Manager
Kingston Town Manager

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CHARLES D. BAKER, Governor | KARYN E. POLITO, Lt. Governor | KATHLEEN A. THEOHARIDES, Secretary | RONALD S. AMIDON, Commissioner | DANIEL J. MCKIERNAN, Director

TO: Daniel J. McKiernan, Director

CC: Marine Fisheries Advisory Commission (MFAC)

FROM: Story R. Reed, Permitting & Statistics Program Manager

DATE: January 6, 2021

SUBJECT: Sale of Shellfish at Farmer's Markets

Summary: The shellfish industry in Massachusetts, particularly the aquaculture sector, has suffered severe economic losses due to market disruptions caused by the COVID-19 public health emergency. This segment of the Massachusetts seafood industry has seemed to suffer the most during the pandemic because of the heavy reliance on restaurants. In the time period of March through October, the ex-vessel value of oysters was down 50% when compared with the same months in 2019. The losses were closer to 80% during March, April, and May.

The loss of markets has caused oyster farmers to have a glut of market-sized product with nowhere to sell it. Because of this issue, growers and Wholesale Dealers have been exploring and inquiring about other markets, including retail sales at farmer's markets.

The Wellfleet Shellfish Department, in conjunction with a local wholesale dealer, approached DMF in the fall with an operations plan for a community shellfish farmer's market. Ultimately, this operations plan was approved, and a Retail Farmer's Market permit was issued to the participating wholesale dealer. The Massachusetts Aquaculture Association asked DMF to provide guidance for other entities that might want to participate in the sale of shellfish at farmer's markets. The following guidance is focused on the Wellfleet model and is subject to change based on individual guidance and refinement of policies.

Initial Guidance: The ability to sell shellfish at Farmer's Market type events begins with the development of a Shellfish Farmer's Market Operations Plan that is developed and coordinated between permitted wholesale dealers and harvesters who sell their product through the wholesale dealers permitted by the local Board of Health, DMF and DPH. An operations plan for conducting the sale of shellfish must be submitted for consideration to DMF and the local Board of Health (see DPH/DMF Shellfish at Farmer's Markets policy - SF-10 and DMF Policy regarding sale of shellfish at farmer's markets No: PPG-09 for guidance).

In short, sales to consumers must be made through a licensed wholesale shellfish dealer under a Retail Farmer's Market permit issued by DMF and a temporary food establishment permit issued by the local Board of Health all under the auspices of an approved Shellfish Farmer's Market Operations Plan.

Highlights of the Wellfleet Shellfish Farmer's Market Operations Plan include:

- A requirement that all participating harvesters bring their shellfish to the Wholesale Shellfish Dealer prior to the date and time of the farmer's market event and the primary transaction is conducted. The licensed wholesale shellfish dealer is responsible for all reporting and paperwork.
- A description of where and when the Shellfish Farmer's Market will take place.
- A requirement that on the day(s) of the Farmer's Market, the licensed wholesale dealer transports the shellfish to the farmer's market location in their refrigerated truck.

Through this process, technically all the sales to the public are being executed by the wholesale dealer consistent with DMF regulations and policy. This model has the feel of "buy direct" and allows orders to be placed from individual growers who are working through the permitted wholesale dealer while concurrently meeting the requirement that all shellfish harvested by commercial permit holders be sold only to certified wholesale dealers.

Questions should be directed to marine.fish@mass.gov.