

**HARBOR PORPOISE TAKE REDUCTION PLAN  
MONITORING STRATEGY**

*Monitoring the Effectiveness and Regulatory Compliance  
of the  
Harbor Porpoise Take Reduction Plan (HPTRP)*

NOAA's National Marine Fisheries Service  
Northeast Region  
Protected Resources Division

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## BACKGROUND

From 1994 to 1998, prior to the development of the Harbor Porpoise Take Reduction Plan (HPTRP), the bycatch estimate for the Gulf of Maine/Bay of Fundy stock of harbor porpoises exceeded 1,500 animals per year in U.S. commercial gillnet fisheries. During that time, the potential biological removal (PBR) level for the Gulf of Maine/Bay of Fundy stock of harbor porpoises was 483 animals. After implementation of the HPTRP in 1998, which included seasonal gear restrictions, modifications, and closures in the Gulf of Maine and the Mid-Atlantic (63 FR 66464, December 2, 1998), harbor porpoise bycatch decreased below the PBR level. The 2001 Marine Mammal Stock Assessment Report (SAR) reported an increased PBR to 747 animals for this stock. Between 2001, when the most recent HPTRP modification was implemented (66 FR 2336, January 11, 2001), and 2004, harbor porpoise mortalities remained below PBR. Although the initial HPTRP achieved the immediate goal of reducing takes of harbor porpoises to levels below PBR, the HPTRP did not achieve the long-term goal of achieving a zero serious injury and mortality rate, known as the zero mortality rate goal (ZMRG), required under the Marine Mammal Protection Act (MMPA). Specifically, harbor porpoise takes, rather than approaching ZMRG, showed an increasing trend after 2001 and again exceeded PBR beginning in 2004.<sup>1</sup>

Anecdotal reports from fishermen and data collected by fisheries observers through the NMFS Northeast Fisheries Observer Program (NEFOP) suggested that many commercial gillnet fishermen were not adhering to the regulations implementing the HPTRP. An analysis of the NEFOP data (collected between January 1, 1999 and May 31, 2007) by the Northeast Fisheries Science Center (NEFSC) revealed that pinger compliance levels fluctuated annually in the Gulf of Maine region after implementation of the HPTRP, with a high of 75% compliance in 1999 and a low of 10% in 2003 and 2004.<sup>2</sup> Similarly, low compliance rates were observed in the area south of Cape Cod and in the Mid-Atlantic. In response, NMFS initiated an extensive outreach and enforcement program in late 2006 that appeared to immediately improve compliance (to approximately 60% in the Gulf of Maine) and reduce harbor porpoise bycatch rates in 2007.<sup>2</sup> Nine voluntary meetings were held from Portland, Maine through Point Pleasant, New Jersey in an effort to update the gillnet fishing industry on the status of the harbor porpoise stock, review the Gulf of Maine and Mid-Atlantic HPTRP requirements, and provide pinger training where needed. Further, NMFS sent permit holder letters and outreach materials to all commercial gillnet fishermen reminding them of the regulations implementing the HPTRP. NMFS also published this information in trade publications.

Despite the early success of these outreach efforts, the 2008 SAR indicated that the average annual mortality from 2002 through 2006 was 866 harbor porpoises per year in U.S. commercial

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<sup>1</sup> Waring, G.T., E. Josephson, C.P. Fairfield-Walsh, and K. Maze-Foley (ed). 2007. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2007. NOAA Tech Memo NMFS-NE-205; 415p

<sup>2</sup> Palka D, Orphanides CD, Warden ML. 2009. Summary of harbor porpoise (*Phocoena phocoena*) bycatch and levels of compliance in the northeast and mid-Atlantic gillnet fisheries after the implementation of the Take Reduction Plan: 1 January 1999-31 May 2007. NOAA Technical Memorandum NMFS NE 212; 89 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at <http://www.nefsc.noaa.gov/nefsc/publications/>

fisheries, exceeding the current PBR of 610 animals.<sup>3</sup> Based on the statutory requirements contained in Section 118 of the MMPA, NMFS was required to take action.

In December 2007, NMFS reconvened the Harbor Porpoise Take Reduction Team (HPTRT) to consider additional modifications to the HPTRP to reduce harbor porpoise bycatch in New England and Mid-Atlantic gillnet fisheries to levels below the stock's PBR and approaching ZMRG. The HPTRT was presented with the most recent harbor porpoise stock abundance and bycatch estimates. NMFS analyzed and presented observer data since implementation of the HPTRP on January 1, 1999, through May 31, 2007 from different geographic areas to detect patterns in harbor porpoise bycatch in U.S. gillnet fisheries. Based on these analyses, the primary issues contributing to the observed increase in harbor porpoise takes in U.S. fisheries after 2001 included poor compliance with existing HPTRP measures and increased bycatch occurring outside of existing management areas. The HPTRT reviewed this information and provided NMFS with recommendations for modifying the HPTRP to address these issues.

In January 2008, the HPTRT was convened again via teleconference to focus on items that required further development or clarification. Based on the recommendations received from the HPTRT, NMFS published a proposed rule to amend the HPTRP on July 21, 2009 (74 FR 36058) that included an expansion of current HPTRP requirements, new management measures (including a Consequence Closure Area strategy), and increased enforcement and monitoring efforts. NMFS published a final rule amending the HPTRP on February 19, 2010 (75 FR 7383).

Recently, the NEFSC reviewed NEFOP data collected between June 2007 and May 2008. The pinger requirements associated with the New England component of the HPTRP still demonstrated low compliance rates, at 66.3%, while compliance rates with the Mid-Atlantic component were even lower, at 48.4%, for an overall observed compliance rate of 62.2%.<sup>4</sup>

## MONITORING THE HPTRP

A comprehensive monitoring strategy is a necessary component of take reduction plans to monitor fishing industry compliance with the plan's requirements, and to evaluate the overall effectiveness of the plan in achieving its goals and objectives.

The HPTRP monitoring strategy incorporates a variety of measures that assist in evaluating compliance levels and overall plan effectiveness:

- *Biological measures* – abundance estimates, mortality estimates, PBR and ZMRG calculations, observer information (locations and timing of observed takes);

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<sup>3</sup> Waring, G.T., E. Josephson, C.P. Fairfield-Walsh, and K. Maze-Foley (ed). 2009. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2008. NOAA Tech Memo NMFS-NE-210; 440p

<sup>4</sup> Orphanides CD, Wetmore S, Johnson A. 2009. Update on Harbor Porpoise Take Reduction Plan Monitoring Initiatives: Compliance and Consequential Bycatch Rates from June 2007 through May 2008; Pinger Tester Development and Enforcement from January 2008 through July of 2009. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 09-14; 16 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at <http://www.nefsc.noaa.gov/nefsc/>.

- *Compliance measures* – observer information (pinger usage, gear configuration information, fishing within closure areas), enforcement data (patrol hours, boardings, warnings/violations issued);
- *Research* – evaluating results from biological and/or gear research in support of the HPTRP; and
- *Education/outreach measures* – distribution of outreach guides and laminated placards, permit holder letters, HPTRP website maintenance, trade-show participation, industry outreach meetings, HPTRP trainings (including to enforcement officers and observer program staff), pinger authorization trainings, direct communications, and publication of an annual compliance and effectiveness report.

Incorporating the measures described above, the HPTRP monitoring strategy is divided into two components: evaluating the HPTRP's overall effectiveness and evaluating compliance with the HPTRP requirements. The compliance monitoring portion is further divided into two related components: on-going monitoring activities (i.e., day-to-day monitoring activities) and annual compliance evaluation. The annual compliance evaluation is especially important in the New England region as NMFS evaluates harbor porpoise bycatch rates as part of its Consequence Closure Area Strategy.

### **HPTRP EFFECTIVENESS MONITORING (Appendix 1)**

The overall effectiveness of the HPTRP is monitored and measured annually by examining whether the short- and long-term statutory goals described in the MMPA are being achieved. This is accomplished by comparing the most recent estimated annual mortality of the Gulf of Maine/Bay of Fundy stock of harbor porpoises to PBR and ZMRG (i.e., 10% of the stock's PBR level). Comparing mortality estimates to PBR and ZMRG reflects the effectiveness of the HPTRP regulations, enforcement, and education/outreach efforts, and provides an indicator of compliance levels. NMFS has developed a process to annually review and monitor the effectiveness of the HPTRP (Appendix 1).

The HPTRP undergoes a yearly evaluation centered on the most recent draft SAR that is released by the NEFSC for review by the Atlantic Scientific Review Group (ASRG). The draft SAR estimates marine mammal population abundance and incidental mortality averaged over the most recent five year period. From these estimates, a PBR level for the marine mammal stock is provided. During its yearly meetings the ASRG will be provided with updates from NMFS staff on where harbor porpoise interactions have been observed, and what trends can be seen from the data compiled from previous years.

Following the release of the most recent draft SAR, the NMFS Northeast Regional Office (NERO) will conduct a review of harbor porpoise abundance estimates and compare the most recent estimated 5-year average of harbor porpoise bycatch to the PBR level. There are three possible scenarios that could result from this analysis:

1. *Harbor porpoise bycatch levels are below or achieving ZMRG*

If harbor porpoise bycatch levels are below or achieving ZMRG, NMFS is satisfying its long-term statutory requirements under the MMPA. NMFS will continue its outreach and enforcement programs or modify these programs as needed to further reduce bycatch levels. NMFS will also monitor harbor porpoise stock abundance, bycatch, and HPTRP compliance levels to evaluate whether modifications to the HPTRP are warranted (e.g., provide relief from particular requirements, lift closure areas in favor of gear modifications).

2. *Harbor porpoise bycatch levels are below PBR and above ZMRG*

If bycatch levels are below PBR but above ZMRG, NMFS is satisfying its goal of reducing bycatch to levels below PBR, but is not yet achieving its goal of achieving levels approaching ZMRG. NMFS will evaluate its education/outreach, research, and enforcement programs, and modify them as needed to further reduce bycatch levels.

3. *Harbor porpoise bycatch levels are approaching or exceeding PBR*

If harbor porpoise bycatch levels are approaching (trending toward) PBR for three consecutive years or exceeding PBR for one year, NEFSC staff will assess harbor porpoise abundance, bycatch, PBR, and ZMRG levels, and produce a status summary document describing factors that could be contributing to the inability of the HPTRP to meet its PBR and ZMRG management objectives. In the interim, NMFS will continue to conduct its ongoing and yearly compliance monitoring activities, and increase outreach and enforcement efforts as needed under the HPTRP to reduce bycatch levels.

Information contained in the status summary may include, but is not limited to:

- Details of observed fishery interactions (locations of observed takes, configurations of the gear with takes, patterns/trends);
- Compliance with the HPTRP (based on observer program and enforcement efforts);
- Trends in traditional commercial gillnet fishing effort;
- New/emerging commercial gillnet fisheries;
- Trends or changes in environmental conditions;
- Biological data, including information collected from necropsy reports and stranded animals;
- Evidence of harbor porpoise habituation to pingers; and
- Other relevant biological or behavioral factors.

After reviewing the status summary for both the New England and Mid-Atlantic regions to evaluate the potential causes for not achieving the management objectives under the HPTRP, NERO and NEFSC will determine whether the HPTRP's goals are not being met due to lack of compliance with the HPTRP measures or, if compliance is sufficient, the HPTRP measures are inadequate.

If analyses show that compliance levels are low, NMFS will refer to its compliance monitoring protocols (Appendices 2 and 3; described below) and review its enforcement and

education/outreach efforts to determine how adjustments can be made to increase compliance with the HPTRP.

If analyses show that the HPTRP management measures are inadequate, NMFS will reconvene the HPTRT to discuss all relevant information, including the status summary report, and recommend modifications to the HPTRP that will allow the HPTRP to achieve its management objectives. Once recommendations from the HPTRT are received, NMFS will proceed through the rulemaking process to modify the HPTRP and implement revised conservation measures.

The status summary document will serve as a guide to the HPTRT and to NMFS throughout the completion of this process and, therefore, will not be reinitiated until after NMFS has taken action to either revise/adjust its compliance monitoring protocols or modify the HPTRP and implement revised conservation measures.

## **HPTRP COMPLIANCE MONITORING (Appendices 2 and 3)**

### **Ongoing Monitoring Activities**

The types of activities described below include annual and day-to-day monitoring activities incorporated into the HPTRP monitoring strategy for both the New England and Mid-Atlantic regions. The information gleaned from these activities will feed directly into NMFS' annual evaluations of the overall effectiveness of the HPTRP and compliance with the HPTRP's measures.

#### *Enforcement Activities*

To monitor and enforce the implementation of the HPTRP, NMFS will continue to work with various partners, including NOAA's Office of Law Enforcement (OLE), the U.S. Coast Guard, and individual states to monitor compliance and enforce the regulatory components of the HPTRP. As appropriate, NMFS will increase HPTRP enforcement to correspond with the expansion of pinger requirements in New England, which will require some fishing vessels that in the past have not been subject to the HPTRP pinger requirements to purchase pingers in order to continue fishing during times and in areas where pingers are required. Enforcement within those management areas that are associated with Consequence Closure Areas is also a priority for monitoring compliance rates.

NMFS will also continue to work with OLE, state enforcement partners, and the U.S. Coast Guard on coordinating special operations patrols to conduct more focused at-sea monitoring and enforcement of HPTRP requirements.

#### *Pinger Detection Devices*

To assist in achieving the HPTRP's enforcement goals, NMFS has purchased pinger detector devices to monitor the presence of pingers on set gillnet gear during the times when pingers are required under the HPTRP. NMFS will continue to coordinate with the states of Maine,

Massachusetts, and Rhode Island by distributing pinger detectors to state enforcement personnel, providing them with the ability to monitor pinger compliance under the HPTRP. NMFS will also coordinate with the U.S. Coast Guard on the use of pinger detectors during their enforcement patrols.

The NEFOP is currently using open-air pinger tester devices on board commercial gillnet vessels. These devices are used to detect the functionality of individual pingers as gillnet gear is being set or hauled. NEFOP is also currently redesigning this device to make the unit more accurate and user-friendly. NMFS will continue to use pinger detection technology in addition to information obtained by fisheries observers to continually monitor the level of pinger compliance in New England.

### *Research*

NMFS will maintain annual research matrices that identify and prioritize harbor porpoise biological research and gear research needs to support the HPTRP. The matrices will be shared with the HPTRT and updated on an annual basis. The matrices will be used to support various funding initiatives by governmental and non-governmental organizations that promote marine mammal conservation.

### *Collection of Observer Data*

In addition to recording location and other information related to incidental interactions between gillnet gear and harbor porpoises, the NEFOP staff continue to observe gillnet trips and record important information to assist NMFS in evaluating compliance with the HPTRP, including fishing within HPTRP seasonal closure areas and gear configuration information (e.g., pinger usage, floatline length, twine size, net length, number of nets per string, tie-down usage).

### *Evaluation of Fishing Effort Information*

NMFS will analyze data collected through fishing vessel trip reports (VTR), or logbooks, in both the New England and Mid-Atlantic regions to monitor commercial gillnet fishing within the HPTRP management areas, and especially during seasonal HPTRP closure areas. If possible, NMFS will coordinate with enforcement staff to utilize vessel monitoring system (VMS) location information to monitor fishing activities.

### *Education and Outreach Efforts*

Monitoring HPTRP education and outreach efforts is an important component of the monitoring strategy that will assist NMFS in its efforts to monitor compliance levels as well as the overall effectiveness of the HPTRP. NMFS will record and track the various components of its education and outreach program, including, but not limited to: distribution of printed material (e.g., permit holder letters, HPTRP outreach guides and laminated placards), HPTRP website maintenance, media releases (e.g., press releases, printed articles), e-mail distributions, NMFS staff attendance at industry workshops or outreach meetings, NMFS staff attendance at industry trade shows, NMFS training provided to observer program and enforcement staff, NMFS pinger

authorization training provided to industry, state education and outreach efforts, and direct communications with individuals.

### *State Education/Outreach and Regulatory Collaboration*

During their 2007 and 2008 meetings, the HPTRT reached consensus on a number of non-regulatory components in support of the HPTRP. NMFS will collaborate with the HPTRT state representatives in both the New England and Mid-Atlantic regions to conduct annual workshops with gillnet fishermen to further increase compliance with the HPTRP regulations and to provide information on recent compliance and harbor porpoise bycatch data. Some state representatives also agreed to work within their state regulations to codify the HPTRP gear requirements in their individual state laws. This could provide a mechanism for increased future joint enforcement efforts between the states and NMFS, and will provide an effective means for increasing compliance.

Additionally, NMFS supports New England and Mid-Atlantic states' efforts to develop and implement an education and outreach effort to increase HPTRP compliance. In New England, the HPTRT and NMFS agreed that it is critical to the success of the HPTRP's conservation measures for members of the commercial gillnet fishing industry to thoroughly comprehend the mechanisms of the Consequence Closure Areas (described in more detail below) should compliance continue to remain low in the Gulf of Maine and southern New England. The states may also explore the possibility of certifying commercial gillnet fishermen and their gear to further increase compliance.

Finally, an analysis of observed harbor porpoise interactions with gillnet gear in the Mid-Atlantic region indicated that increased gillnet soak times may lead to an increase in harbor porpoise bycatch. While soak times are not regulated under the HPTRP, NMFS supports Mid-Atlantic states' efforts to develop and implement an education and outreach effort to increase compliance and to emphasize the need to reduce the gillnet soak times.

### **Annual Compliance Monitoring Activities**

NMFS will conduct an annual review of HPTRP compliance using a variety of tools and information collected through NMFS' ongoing monitoring activities, including calculated bycatch rates (using observer program data), enforcement effort summaries, pinger usage detected by NEFOP staff, and education and outreach summaries. In New England, the compliance portion of this analysis will primarily include percentages of compliant hauls with the pinger requirements, indications of fishing within HPTRP seasonal closures, and harbor porpoise bycatch rates within management areas. In the Mid-Atlantic, compliance will be based on indications of fishing within HPTRP seasonal closures, adherence to the seasonal gear modification requirements (e.g., twine size, number of nets per string), and bycatch rates generated for harbor porpoise/gillnet interactions within the management areas.

### *Compliance Monitoring Protocol (Appendix 2)*

After the HPTRP management area seasons have ended (May 31), NERO and NEFSC staff will synthesize the information collected throughout the previous HPTRP management season through NMFS' ongoing monitoring activities (e.g., observer program and enforcement effort information, education and outreach information) to evaluate HPTRP compliance levels and harbor porpoise bycatch rates (Appendix 2).

Also following the end of the HPTRP management season (May 31), NEFSC staff will compile and review fisheries observer data collected through the NEFOP from observed gillnet trips that occurred throughout the previous HPTRP management season. Based on these data, NEFSC will then generate bycatch rate and compliance information for those New England management areas that are associated with Consequence Closure Areas (Mid-Coast, Stellwagen Bank, Massachusetts Bay, and Southern New England Management Areas), since this information is time-sensitive and will be used by NERO to make trigger determinations for Consequence Closure Areas. Bycatch rates will be averaged with data from the previous management season to determine if the two-year target bycatch rates for these areas have been exceeded.

Following these calculations, NEFSC will generate bycatch rate and compliance information for all other management areas that are not associated with Consequence Closure Areas (Northeast Closure, Offshore Management, and Cashes Ledge Closure Areas in New England, and all of the Mid-Atlantic management areas).

After the bycatch rate and compliance information has undergone peer review, NEFSC will transmit it to NERO. Due to the time-sensitive nature of calculating the bycatch and compliance rates for the management areas that are associated with Consequence Closure Areas, this information will be generated, peer-reviewed, and transmitted prior to the rates and information for the other management areas.

Once received, NERO will evaluate the bycatch rate and compliance information to examine compliance with seasonal closure areas, pinger requirements in New England, and gear modification requirements in the Mid-Atlantic. If necessary, NMFS will review its enforcement and outreach efforts to make any necessary adjustments to ensure the highest level of compliance is achieved.

For those areas associated with Consequence Closure Areas, the evaluation of bycatch rates is particularly important for determining whether target bycatch rates are being exceeded due to low compliance levels within these management areas. NERO and NEFSC staff will also compare these bycatch rates to other compliance information, such as the percentage of compliant gillnet hauls within the management areas that are associated with the Consequence Closure Areas.

### *Consequence Closure Area Monitoring Protocol (Appendix 3)*

In New England, the HPTRT recommended a management strategy establishing "consequence" closure areas. The HPTRT's rationale for recommending Consequence Closure Areas is to

decrease harbor porpoise bycatch within select HPTRP management areas with historically high bycatch levels by increasing compliance with the HPTRP through targeted outreach and education efforts. Should the bycatch rate exceed the specified target bycatch rate, the “consequence” would be the implementation of seasonal closures. This strategy has been incorporated into the amended HPTRP (75 FR 7383, February 19, 2010). Consequence Closure Areas, if implemented, would become seasonally closed if the observed average bycatch rates over two consecutive management seasons indicate that harbor porpoise takes exceed the specified target bycatch rate. If any of the Consequence Closure Areas are triggered, the associated seasonal closures will remain in effect until harbor porpoise bycatch levels achieve ZMRG or until the HPTRT and NMFS develop and implement new measures.

### Consequence Closure Area Descriptions

The Consequence Closure Area concept was first recommended by the HPTRT for the region south of Cape Cod. Harbor porpoise takes in commercial gillnet gear have been observed seasonally within, as well as south of, the Cape Cod South Management Area and to the east of Cape Cod. Ultimately, the HPTRT recommended creating a consequence area that included the existing Cape Cod South Management Area as well as its southern expansion, which was named the Cape Cod South Expansion Consequence Closure Area.

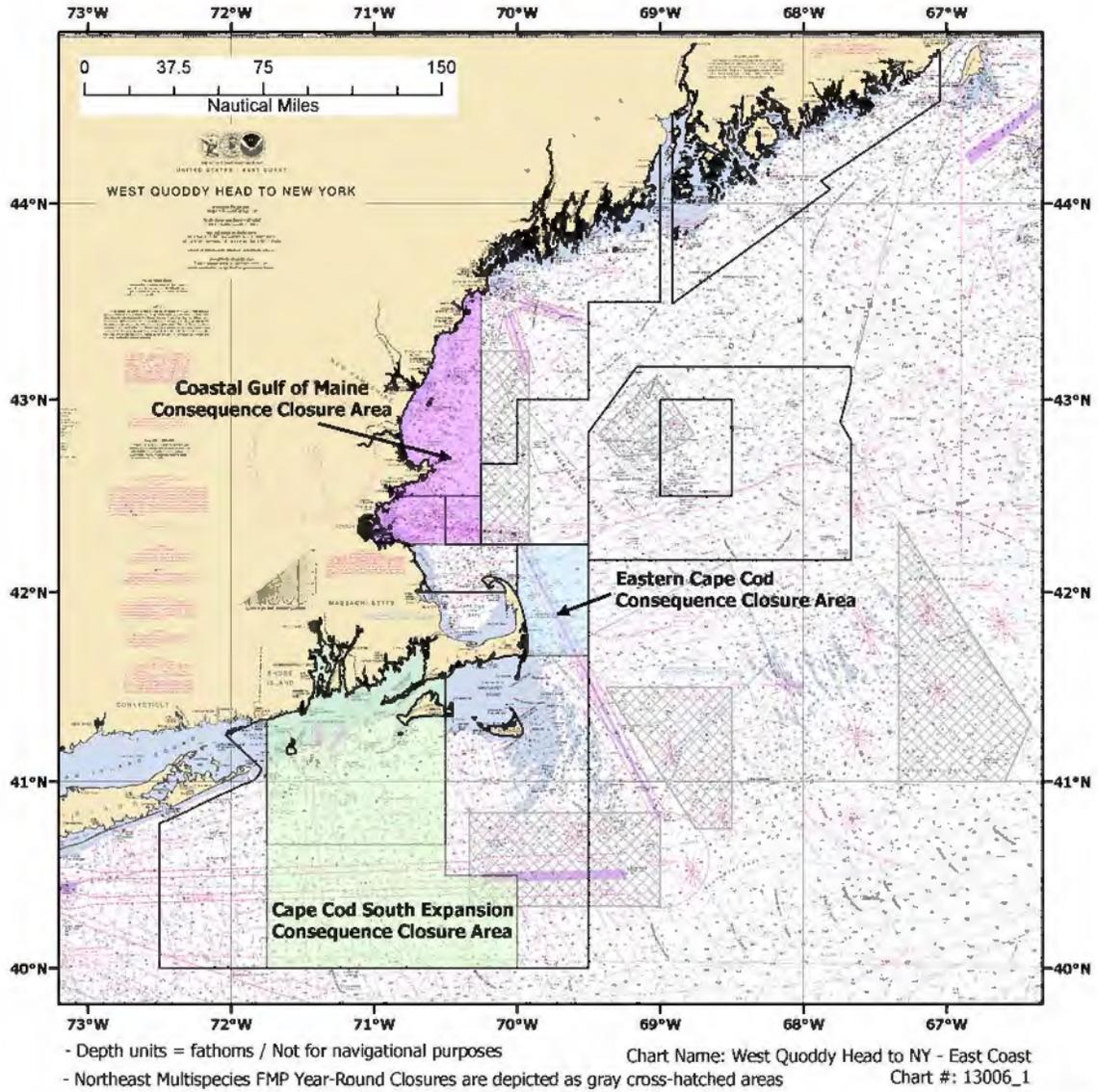
The HPTRT discussed the conditions under which the Cape Cod South Expansion Consequence Closure Area would become closed. The HPTRT recommended that, once triggered, the area would be closed from February through April because these are the three months within the December through May time period during which harbor porpoise bycatch rates were highest. In addition, the HPTRT agreed that the Cape Cod South Expansion Consequence Closure Area should be linked to the bycatch rate within the Southern New England Management Area. Following the HPTRT meeting, NMFS determined that the target bycatch rate reflecting 100% compliance with the pinger requirements in place for the Southern New England Management Area would be 0.023 harbor porpoise takes per metric tons of landings.

During the January 2008 meeting, the HPTRT recommended a second Consequence Closure Area to the east of Cape Cod, named the Eastern Cape Cod Consequence Closure Area, based on observed takes of harbor porpoises. This area was chosen as part of the Consequence Closure Area strategy due to concerns about compliance in this portion of the Southern New England Management Area if there were no “consequences” in place. The target bycatch rate and closure time period, if triggered, for the Eastern Cape Cod Consequence Closure Area is the same as the Cape Cod South Expansion Closure Area. The Eastern Cape Cod Consequence Closure Area would also be linked to the bycatch rate within the Southern New England Management Area. Therefore, if the target bycatch rate of 0.023 harbor porpoise takes per metric tons of landings for the Southern New England Management Area is exceeded after two consecutive management seasons (December through May), both the Cape Cod South Expansion Consequence Closure Area and the Eastern Cape Cod Consequence Closure Area would be closed to gillnet fishing each year from February through April (Figure 1).

Prior to the January 2008 HPTRT meeting, the states of Maine, New Hampshire, and Massachusetts submitted a proposal to NMFS for review by the HPTRT with a suggested suite

of conservation measures for the Gulf of Maine. The proposal included the implementation of a Consequence Closure Area, similar to the strategy employed for the Southern New England Management Area, to address continued harbor porpoise bycatch occurring off the coasts of southern Maine, New Hampshire, and Massachusetts, primarily within the Mid-Coast Management Area. The proposed Consequence Closure Area, the Coastal Gulf of Maine Consequence Closure Area, would be triggered if, after the most recent two HPTRP management seasons, the average bycatch rate exceeds 0.031 harbor porpoises per metric tons of landings (Figure 1). The average bycatch rate would be calculated by averaging the bycatch rates of the Mid-Coast, Massachusetts Bay, and Stellwagen Bank Management Areas. If triggered, the Coastal Gulf of Maine Consequence Closure Area would be closed to gillnet fishing each year from October through November.

Figure 1. HPTRP Consequence Closure Area locations and closure time periods should they become closed in the future.



Legend	
	Coastal Gulf of Maine Consequence Closure Area
	Eastern Cape Cod Consequence Closure Area
	Cape Cod South Expansion Consequence Closure Area
	Multispecies FMP Closures (year-round)
	HPTRP Management Areas

<p><b>Coastal Gulf of Maine Consequence Closure Area</b> Closed: Oct. 1 - Nov. 30*</p> <p><b>Eastern Cape Cod Consequence Closure Area</b> Closed: Feb. 1 - April 30*</p> <p><b>Cape Cod South Expansion Consequence Closure Area</b> Closed: Feb. 1 - April 30*</p> <p>*Closures will only be enacted if specified harbor porpoise bycatch rates are exceeded.</p>
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## Monitoring Protocol

NMFS has developed a separate compliance monitoring protocol for those areas associated with Consequence Closure Areas (Appendix 3). The first steps in the protocol are the same as those described above for the overall compliance monitoring protocol (Appendix 2), where NEFSC staff compile and review the observer data, generate bycatch rates and compliance information which undergo a peer review, and ultimately provide this information to NERO.

NERO will then evaluate the bycatch rate information obtained from NEFSC for those management areas associated with the Coastal Gulf of Maine Consequence Area, and the Eastern Cape Cod and Cape Cod South Expansion Consequence Closure Areas. For these areas, three scenarios are possible.

- *Harbor porpoise bycatch rate is below the target bycatch rate.* If harbor porpoise bycatch rates are below the target bycatch rates, compliance levels are sufficiently high and bycatch levels are low. NERO will evaluate its education and outreach program and modify it as necessary to maintain or increase compliance levels.
- *Harbor porpoise bycatch rate exceeds the target bycatch rate after one management season.* In this scenario, compliance levels are not sufficiently high to reduce harbor porpoise bycatch levels to below the target bycatch rate. NERO will evaluate its education and outreach program and modify, as necessary, to increase compliance levels and reduce harbor porpoise bycatch levels prior to the conclusion of the following HPTRP management season. Additional outreach could occur through such methods as permit holder mailings, industry workshops, and articles in industry publications. In addition, NMFS will prepare for the potential implementation of the appropriate Consequence Closure Area(s) by drafting a permit holder letter and *Federal Register* notice to be finalized if bycatch rates exceed the target bycatch rate after the second consecutive management season. NMFS will also provide briefings to NOAA's Office of Legislative Affairs.
- *Harbor porpoise bycatch rate exceeds the target bycatch rate over two consecutive management seasons.* If, after the conclusion of the second consecutive management season, the harbor porpoise bycatch rate (averaged over the two management seasons) in the management areas associated with the Consequence Closure Areas exceeds the target bycatch rates, the corresponding Consequence Closure Area(s) will be triggered.

The Coastal Gulf of Maine Consequence Closure Area will trigger if the average bycatch rate after two consecutive management seasons exceeds the target rate of 0.031 harbor porpoise takes per metric ton landed. If triggered, a seasonal closure will be in place from October through November each year.

The Eastern Cape Cod and Cape Cod South Expansion Consequence Closure Areas will trigger if the average bycatch rate after two consecutive management seasons exceeds the target rate of

0.023 harbor porpoise takes per metric ton landed. If triggered, a seasonal closure of both consequence areas will be in place from February through April each year.

To facilitate the process of establishing a Consequence Closure Area(s), NERO will finalize a permit holder letter, publish a *Federal Register* notice, revise HPTRP outreach materials, prepare a press release, and notify the HPTRT of the enactment of the Consequence Closure Area. In addition, interested parties on NERO e-mail distribution lists, enforcement contacts, the observer program, and state agencies will be notified of the action. NMFS will also update its HPTRP webpage and provide briefings to NOAA's Office of Legislative Affairs.

Once established, Consequence Closure Areas will remain in place indefinitely or until such time as the HPTRT is reconvened and the HPTRP is modified to achieve or maintain ZMRG.

#### *Annual Harbor Porpoise Bycatch and Compliance Report*

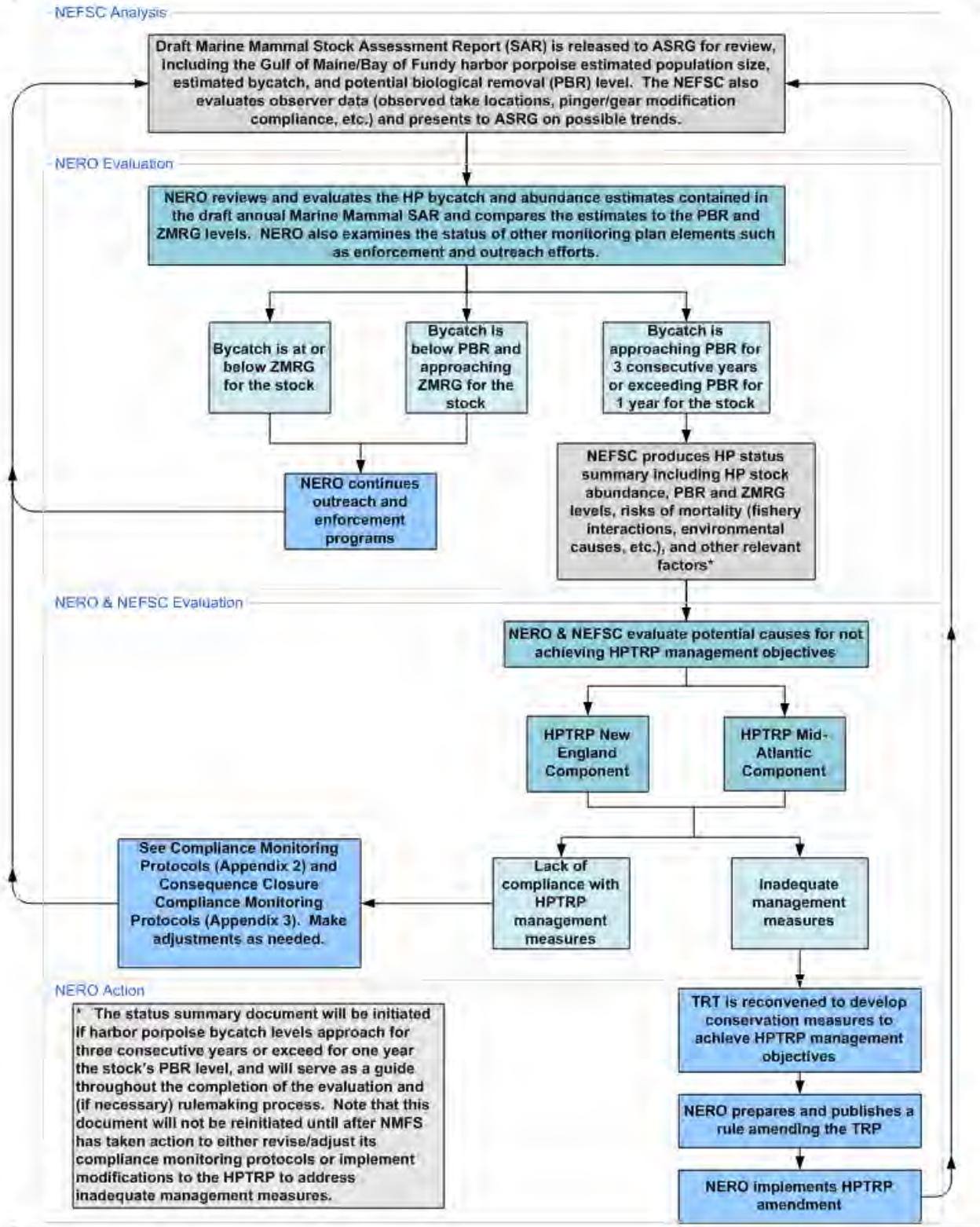
Following each management season and after NMFS has conducted its annual review of harbor porpoise bycatch rates and compliance levels, NMFS will publish a report detailing its annual monitoring initiatives by providing information on compliance levels with HPTRP requirements by management area; bycatch rates by management area, particularly in relation to target bycatch rates for those areas associated with Consequence Closure Areas; and other HPTRP enforcement, observer program, research, and education/outreach updates.

The information contained in this annual report will be summarized and provided to the HPTRT, and the paper itself will be available to the public once it has gone through the NEFSC review process.

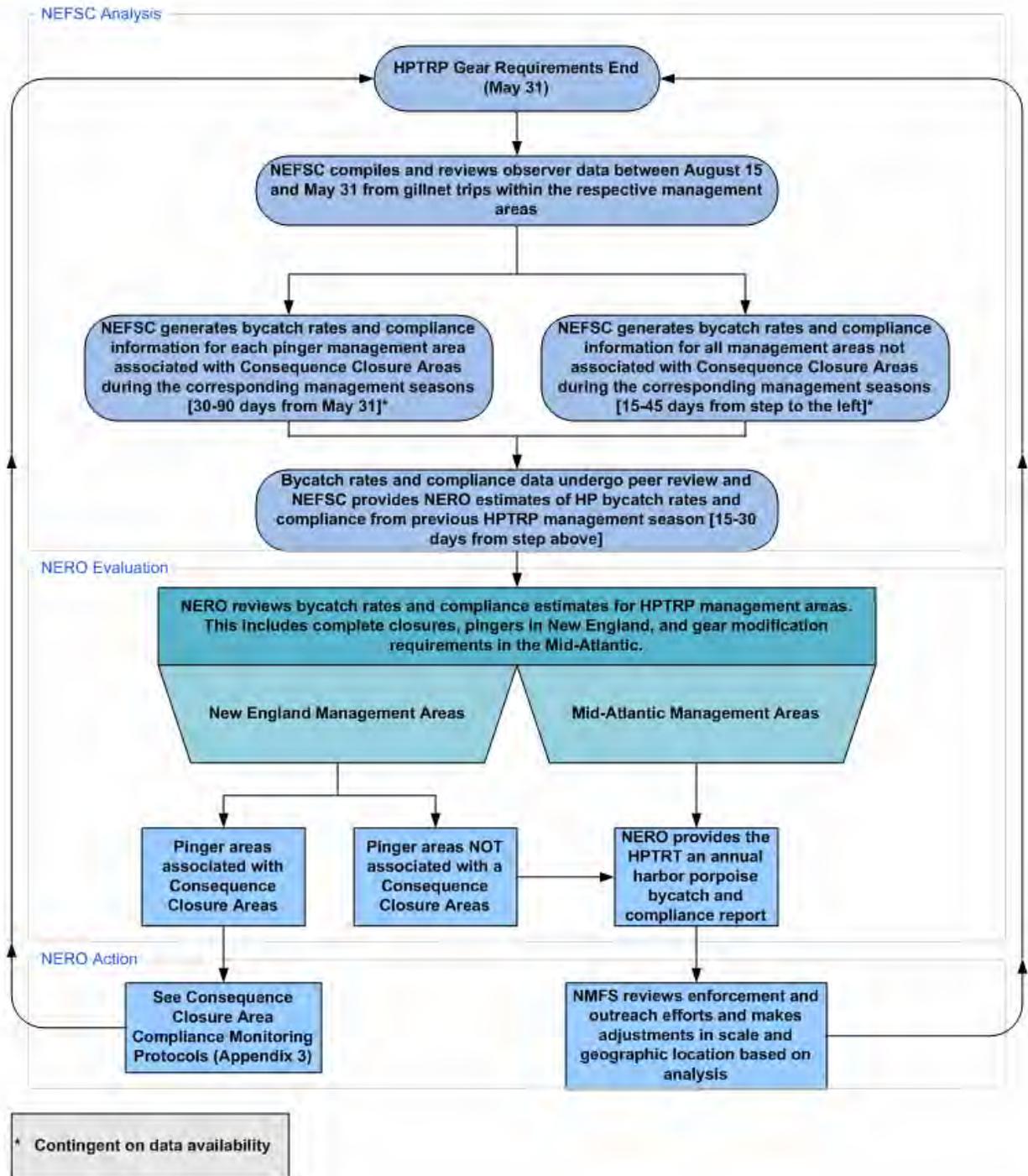
#### **SUMMARY**

This comprehensive monitoring strategy will assist NMFS in evaluating compliance levels with the HPTRP, effectiveness of the HPTRP's measures for achieving its goals and objectives, and the ability to meet the goals mandated by the MMPA.

# Appendix 1: HPTRP Effectiveness Monitoring



## Appendix 2: HPTRP Compliance Monitoring



## Appendix 3: HPTRP Consequence Closure Area Compliance Monitoring

