

General category measures continue the status quo. As argued in the social impacts analysis above, this can be seen as both positive and negative: positive in that continues a customary use of and access to New England fisheries and provides a stable fishery for fishermen practicing annual rounds, but negative if high catches from the scallop biomass attract unsustainable additional effort into the fishery. The inclusion of general category vessels into newly reopened areas will positively impact these fishermen in that it obviates the potential problem of closing out small vessels from traditional areas, though, as stated above, small vessels (generally synonymous with general category vessels) may be more vulnerable to the specificities of rotational area management. The prohibition on limited access vessels use of general category permits when not using DAS will probably have a negligible effect on the biomass and industry (see Table below) but will help close the perception of an unfair loophole in regulations.

Table 367. Proportion of reported landings by various scallop permit categories, 1997-2003 fishing years. Source: 1997-2003 logbooks.

	1997		1998		1999		2000		2001		2002		2003	
	% of Total lbs.	No. of Vessels	% of Total lbs.	No. of Vessels	% of Total lbs.	No. of Vessels	% of Total lbs.	No. of Vessels	% of Total lbs.	No. of Vessels	% of Total lbs.	No. of Vessels	% of Total lbs.	No. of Vessels
Limited access vessels that land scallops on non-DAS trips	0.0	0	0.2	1	0.2	1	0.6	2	0.1	1	0.0	0	0.0	0
Limited Access Only	95.6	226	95.2	232	97.9	242	97.7	255	96.4	282	96.7	290	95.9	143
General Category Only	4.4	166	4.5	153	1.9	152	1.6	170	3.5	236	3.3	240	4.1	82
Total	100	392	100	386	100	395	100	427	100	519	100	530	100	225

Finally, the amendment contains no EFH-specific measures but rather relies on other measures to mitigate impacts on Essential Fish Habitat. Such an approach to EFH may have impacts in terms of its cumulative effects and impacts on other fisheries, however, for whatever the impacts to habitats may or may not be, it most certainly contributes to inter-fishery perceptions of unfairness and hurts industry-government relations in other fisheries.

8.9 Enforceability Assessment (T. DuBois)

An enforceability assessment was prepared by the Enforcement Committee, working closely with Council staff. Management alternatives that required active enforcement related to proposed measures are assessed in the discussion below. This discussion does not include alternatives for defining overfishing (Section 3.4) and for adjusting management measures (Section 5.3.9), because by themselves they have no enforcement implications. Habitat alternatives (Section 5.3.4) are not discussed separately and individually because they mainly rely on the application of closed areas, a subject that is assessed in Section 8.9.1 below. Management measures using closed areas, as described for area rotation, are easier to enforce and have better compliance when they are large, use straight boundaries, run along lines of latitude and longitude, and apply to a broad class of easily observed vessels. VMS helps enforcement of area closures.

8.9.1 Alternatives To Improve Scallop Yield

8.9.1.1 General area rotation policies

Overall enforcement guidance related to implementation of closed area management measures is based in the “Precepts for Efficient Fisheries Enforcement”. This alternative provides for four types of areas (closed, recently re-opened, open, and long-term closure), and the overriding recommendation from enforcement is to ensure that areas are “clearly defined in large, plain shapes” and that their status (open, closed, open to some vessels) is maintained for reasonably long periods of time. Enforceability is further enhanced by limiting exemptions or transiting provisions (except for compelling safety reasons).

Under the general policies, closed areas would be closed to all vessels fishing with scallop dredge or scallop trawl gear. Also included will be a provision for zero possession limit on scallops when in the area. This alternative could mainly be enforced through the use of VMS currently installed on limited access scallop vessels. These closed areas could also be effectively enforced through the use of aerial and surface patrols and at-sea boardings by USCG units.

The second category of area implemented under the general area rotation rules would be “recently re-opened” areas. These areas would allow limited access and general category vessels to fish for scallops only on “authorized trips” in these areas. It would also allow vessels with “incidental catch permits” to retain more than 40 lbs. In order to effectively enforce the access of scallop vessels “on authorized trips” to these areas, enforcement would need to have up to date listings of vessels authorized to be in a given area. VMS on all scallop vessels authorized to operate in the “recently re-opened” areas would significantly enhance the ability to enforce authorized vessels operating within these areas. Enforcement will be compromised to the extent that vessels without VMS are allowed in these areas because vessel identification becomes too difficult and incidental catch vessels may be used to pass off any illegally possessed amounts.

The third category of area under the area rotation plan is the open area which allows for any vessel to fish for any species under applicable rules. This poses no enforcement concerns.

The fourth category, long-term closure, is enforceable through the use of both VMS (to ensure VMS equipped vessels do not fish within the closed area) and aerial/surface patrols. This closure would allow only vessels using gear not prohibited under the closure to fish.

8.9.1.2 Mechanical area rotation with fixed area boundaries

This alternative would require areas to open and close according to a fixed schedule (3 years open/3 years closed or 5 years closed/1 year open). The shapes/sizes of some of the areas designed off of the New England coast (such as GB3) do not meet the general enforcement recommendation of large, plain shaped areas however the proposed areas off the mid-Atlantic do meet the area criteria. Larger areas with straight line boundaries and the ability to provide a buffer between the area boundary and the scallop stocks would enhance enforceability of this alternative. Overall, the long duration of the closures and a predetermined rotational schedule are very helpful to enforcement of this area rotation alternative.

8.9.1.3 Adaptive closures, for a fixed duration and with fixed area boundaries

Adaptive closures with fixed duration and fixed area boundaries make notification and planning of enforcement resources possible. Boundaries need to be set sufficiently back from scallop beds to allow

for effective protection of stocks. If transit of closed areas is an option, gear stowage requirements must be used. The current gear stowage requirements are adequate and allow for effective enforcement from aerial and surface enforcement platforms. VMS continues to be an extremely valuable enforcement monitoring tool in any closed area management plan.

Adaptive closures and re -openings with fixed area boundaries

Adaptive closures of areas with fixed boundaries are addressed in 8.9.1.2 above. The change in this alternative from that above is the varying re-opening schedule. The only enforcement concern is that there must be adequate notice to fishermen to ensure reasonable ability to comply with the closure. The same adequate notice should be sufficient for enforcement personnel and patrol units to effectively enforce the closure. VMS would also be a valuable enforcement tool in this situation as well.

Adaptive closures and re -openings, with fixed boundaries and mortality targets or frequency of access that vary by area

The enforcement issues raised above would also apply to this alternative.

Adaptive closures and re -openings, with adaptive boundaries identified by survey when the areas are closed

Any management plan that changes the dates and shapes of closed areas will include a significant cost of notice for, and identification of, the closed areas to fishermen and the Agency. Closure dates must be set well in advance and closure area boundaries must be well known prior to any closures. The enforcement concerns in adaptive closures and adaptive boundaries is to ensure adequate notice is provided to fishermen and enforcement. Historically, vessels have “accidentally” entered newly closed areas and significant time (both fishermen’s, enforcement’s and NOAA General Counsel’s) has been spent trying to determine whether such incursions were intentional or accidental. With sufficient notice and with areas following the precepts for enforceable closed areas, this alternative does not provide additional enforcement concerns from other closed areas.

Closure shaping rules

This alternative would create “blocks”, “each approximately 75 square nautical miles in size, by the existing grid of latitude and longitude lines at 10 minute intervals.” The blocks would be further grouped into five areas (Gulf of Maine, Georges Bank, South Channel, Hudson Canyon, Southern). Closures would be applied to these areas in various ways by this alternative. From the enforcement perspective, the discussion of possible scenarios of closed and open areas created by this alternative seems fairly complicated. We again recommend a simple, long term closure practice whenever possible.

Closure process

Enforcement concerns related to the closure process is limited to ensuring that whatever process is selected provides adequate notice to both fishermen and enforcement units/personnel to ensure there is a legitimate ability to comply with, and enforce, closures. Short notice closures obviously create a difficulty for both patrolling units and fishermen at sea. The process outlined in this alternative provides adequate notice to be provided to all concerned.

Area based management – with area specific fishing mortality targets without formal area rotation

This proposal suggests that vessels would receive area specific effort (trips, days, etc.) allocations to reduce localized overfishing. This proposal would remove area closures and there would be no formal rotational system. In addition to area specific effort allocations for each vessel, this proposal also would allow for “voluntary participation in a trading day-at-sea mechanism”.

From the enforcement perspective, this proposal would pose significant challenges to effective enforcement. The overall proposal would require monitoring of every vessel’s activity to ensure they did not exceed their individual effort allocation in each specified area. The only effective mechanism to approach this from the enforcement perspective would be mandatory VMS on all vessels involved in the scallop fishery. This, in and of itself, would increase resource needs by enforcement in order to determine if the VMS system and personnel can adequately monitor the additional vessels.

Trading of allocations poses additional concerns and administrative burden on the agency. If considered, enforcement would need to continually know the amount of allocation effort held by all vessels. The enforcement stand would be to set an annual deadline by which all trading/transferring of allocation is completed by with no allowance for trades/transfers beyond that date for the current fishing year. Enforcement by air/sea patrols would be considerably more challenging when each vessel holds varying, individual allocations for each specified area. It would require a constant “feed” of vessel allocation use and remaining amounts. Effective enforcement is unlikely under this proposal.

Georges Bank access to groundfish closed areas

Under this alternative, portions or all of the four groundfish closed areas may be opened for scallop fishing on a periodic basis. The three options proposed under this alternative are 1) access to all non-HAPC areas by scallopers, 2) access to areas opened by Framework Adjustment 13 and 3) no access.

Increasing the minimum ring size to 4 inches in all or select areas

The first option under this alternative will increase ring size to 4 inches everywhere. A region wide (all areas) increase in the dredge ring size does not introduce any difficulties for enforcement.

The second option under this alternative would increase the ring size only for vessels fishing within re-opened areas. Varying gear requirements from area to area presents similar challenges to enforcement as those faced with proving the use of net liners. This would be very difficult to catch and extremely resource intensive. If varying gear restrictions are imposed, it will be critical to require vessels fishing within the re-opened areas to possess only dredges with four-inch rings. Enforcement of this alternative will rely mainly on at-sea boardings of vessels engaged in fishing. Dockside enforcement could only be accomplished with a regulation prohibiting possession of gear not compliant with requirements in the area fished combined with VMS tracking to verify area fished.

Gear specific day-at-sea allocation adjustments based on equal mortality per day-at-sea

Gear specific DAS allocations - No specific enforcement concern. Though a standard baseline on DAS, regardless of gear type, would enhance the enforcement effort.

8.9.2 Alternatives For Allocating Effort

Individual day-at-sea allocations by management area

Day-at-sea accounting for various areas would be significantly enhanced through the use of VMS on all vessels involved in this management regime.

Area-specific trip allocations with possession limits and day-at-sea tradeoffs

This alternative offers a management system similar to what is in use with the Hudson Canyon area now. Vessels with limited access permits would be allowed to take a specified number of trips into a “re-opened” area. There would be a possession limit and a day at sea tradeoff for trips into these areas. Since limited access vessels have VMS requirements already, there are no enforcement concerns with tracking vessel trips into the “re-opened” areas and for the day at sea accounting for these area trips. Without universal VMS coverage, reliance will be on at sea/aerial enforcement to detect non-VMS vessels from entering the area as well as to prevent transferring of scallops harvested beyond the possession limit to non-VMS vessels. Furthermore, a vessel must not enter or exit a “re-opened” area more than once per trip.

One-to-one exchanges of area-specific allocations (days-at-sea or trips)

Allocation trading occurs now in the surf clam/ocean quahog fisheries with trading limited to one time per year which is controlled by NOAA/NMFS. Enforcement’s recommendation on any consideration of a similar trading/exchanging of allocation effort in the scallop fishery should be patterned after the surf clam/ocean quahog system, which has been successful.

Closures

These alternatives all discuss closed areas for varying reasons. Enforcement recommends following the guidance provided in the “Precepts for Efficient Fisheries Enforcement”. Again, use of VMS for all involved vessels would enhance enforceability of the closed area regardless of the reason for the closure. Increased use of VMS would, however, require additional enforcement resources for monitoring as well as verification that the system is prepared to handle the increased vessel monitoring load.

Reduce the maximum dredge width to 13 feet

Region wide reduction of dredge size does not pose any enforcement related problems. As the current dredge width requirements, this alternative would rely on at-sea boardings to determine compliance with a reduced dredge width.

Restrictions on rock chains

Region wide restriction on rock chains does not pose any significant enforcement related concerns. As with other gear restrictions, this alternative would rely on at-sea boardings to determine compliance with this restriction.

Habitat research funded through scallop TAC set-asides

No enforcement issues for this alternative beyond ensuring enforcement entities are notified of authorized research occurring in areas and/or with gear not authorized for other vessels.

Area based management and rotation

These alternatives are addressed in Section 8.9.1.

Increasing dredge ring size to 4-inches

Region wide increase in ring size does not pose any enforcement related problems. As the current ring size requirements, this alternative would rely mainly on at-sea boardings to determine compliance with increased ring size.

8.9.3 Alternatives For Reducing Bycatch And Bycatch Mortality

Area rotation

This alternative is addressed Section 8.9.1.

Increasing the minimum ring size to 4-inches in all or select areas

Any changes to gear requirements should be uniform throughout the industry regardless of areas fished as discussed previously. Beyond that concern, there are no additional enforcement issues related to increasing the minimum ring size.

Increase minimum twine top mesh to 10-inches in all or select areas, and/or specify how twine tops should be installed in dredges

Any changes to gear requirements should be uniform throughout the industry regardless of areas fished as discussed previously. Beyond that concern, there are no additional enforcement issues related to increasing the minimum twine top mesh to 10 inches.

Gear modifications based on recent research

No enforcement related concerns can be raised until specific gear modification requirements are identified.

Area-specific possession limits for some finfish species

Varying possession limits for different species in different areas likely will be difficult to enforce, especially without universal VMS coverage. Prohibition of retention of certain species would be readily enforceable in both at-sea and dockside enforcement boardings. If bycatch limits of various finfish is dependent upon area fished, universal VMS coverage would greatly assist in this effort and make such limits much more enforceable.

Area specific TACs for some finfish species

With area specific TACs on finfish and area closures based on the bycatch of finfish taken by scallop vessels, there will be an increased emphasis on the need for accurate reporting. This alternative calls for an increase in observer coverage to help improve the accuracy of estimated bycatch in the various areas. The enforcement concerns related to increased observer coverage are addressed in Section 8.9.5.

Area-specific seasons to avoid bycatch

Seasons set in advance to avoid bycatch in the various areas do not pose any unique enforcement concerns. Areas should continue to follow the precepts laid out by the enforcement committee and the Council when delineating closed areas which are enforceable.

Long-term, indefinite closures to avoid areas with high bycatch levels

Long term closures of areas which meet the general recommendations for closed areas (large areas, straight boundaries etc.) would be the most enforceable option to protect high bycatch areas. This closure would be most effective toward vessels equipped with VMS as other vessels would require at sea or aerial patrol units to enforce the closed areas.

Develop a protected species program

This alternative focuses on the data collection procedures, observer training, and analyses needed to address the Council's concerns related to protected species (turtles). At this time, there are no enforcement issues raised by this measure until specific gear alterations are recommended based on the increased data gathering/analysis.

8.9.4 Alternatives For Managing Scallop Fishing By Vessels With A General Category Permit Or Fishing For Scallops When Not On A Day-At-Sea

Incidental catch permit with a reduced possession limit; general category permit for targeting scallops and enhanced reporting requirements and area specific or overall TACs

This alternative would have a new general category permit issued to vessels who intend to target sea scallops, with enhanced monitoring and reporting requirements. This permit would allow the option of general category vessels being authorized to fish in "re-opened" areas. A second permit would allow vessels to retain smaller amounts of scallops as bycatch when targeting other species. Vessels would be allowed to obtain one or both permits. This permit would also allow for the sale of the scallop bycatch unlike the present 40 lb personal use provision. The sale of incidental take scallops will complicate enforcement efforts to ensure accurate reporting and increase the need for enforcement presence to ensure incidental take scallops are reported.

General Category Permit

The requirement to obtain a VMS unit to participate under this "new" general category permit would enhance enforcement's ability to ensure area rotation compliance. Furthermore, enforcement would be able to adapt VMS to meet future regulatory changes that may deal with monitoring DAS use per area fished. There will be an increase in enforcement resources needed to monitor increased VMS usage in this alternative if it is adopted.

Incidental Catch Permit

In order to enforce the possession limits fairly, a vessel must not be able to combine the limit prescribed under the General permit with that prescribed under the incidental permit when a vessel carries both permits.

Open access for vessels to obtain either an incidental or general category scallop permit; no TAC would apply except possibly in re-opened scallop management areas; possession limits for each open access permit

This alternative also provides for two permits as outlined above however this option has vessels participate in the call in system and would have the operator call in to report any trip which exceeded the incidental catch possession limit. Once a vessel exceeded 45 days of scallop fishing trips, he would be required to operate a VMS in lieu of the call in system. This alternative poses several enforcement concerns including enforcement of a provision requiring call in for trips which exceed the incidental catch limit. A potential scenario would be for the vessel to call in and report when enforcement is present while claiming the incidental amount or less when enforcement is not present. By requiring VMS after 45 days, there will be increased incentive to risk fishing without calling in so to prevent hitting the 45 day threshold. This will require an increased enforcement presence both dockside and at sea to detect/prevent these types of violations.

General Category Permit

This alternative (as outlined above) would be similar to the current system up to the 45 day threshold and would require trip limits (preferred option is same as current 400 lb limit per trip). Enforcement currently has insufficient resources to adequately address enforcing trip limits in many areas due to the need to be present when the vessel hits the dock. Without an ability to monitor vessel location (VMS), this will continue to be an enforcement problem under this alternative.

Incidental Catch Permit

This alternative will allow for retention of bycatch amounts of scallops (proposed 20 lbs per day-at-sea up to 160 lbs per trip) for commercial sale. The enforcement issues are similar to those outlined above as to resources needed to ensure trip limits are complied with. By allowing sale of the scallops, incentives are increased to exceed the limits when enforcement presence is low and scallop prices are high.

8.9.5 Alternatives For Improving Data Collection And Monitoring

Adequate observer coverage and funding by day-at-sea or TAC set aside

As acknowledged in other alternatives, the accuracy and reliability of bycatch reporting is questionable. In order to achieve the level of reliability necessary for appropriate management decisions, this alternative outlines the need for an increase in observer coverage to monitor non-target species TACs as well as to comply with National Standard 9. An increase in observer coverage does not pose any enforcement related concerns and is beneficial to overall monitoring of fishing activity. In other regions of the country, increases in observer coverage have had associated increases in enforcement related situations requiring resources to respond to. The level of any potential increase in enforcement related situations associated with this alternative appear to be minimal initially however sustained increases in observer coverage could raise the number of incidents requiring enforcement response. This alternative also raises the need to evaluate observer related regulations to ensure they are adequate to encompass the needs of an increased observer presence at sea. Included with the increase in observer coverage will be the need for involved vessels to comply with the safety requirements (obtaining USCG Safety Exam decal) in order to carry an observer.

Bag tags and standard bags – Alternative 1

Although there are potential enforcement gains from a bag tag requirement, it remains unclear as to what the intent of this program is. The limited benefits appear to be far outweighed by the costs and administrative burden of implementing a bag tag program that would be able to truly enhance the enforcement of possession limits. A number of concerns have been raised regarding this alternative including the following: The administrative burden of accounting for and issuing tags would need to be placed on NOAA/NMFS; enforcement time/resource intensive to document a violation and make a case; fairly easy to falsify tags; creation of a “black market” for untagged scallop bags which will include bags with no vessel identifiers on them. Dealers would be able to argue that such bags came from other dealers. Getting paperwork for such transactions would be difficult, especially with NOAA’s current lack of subpoena power.

Issues likely to arise with a bag tag system include "mis-tagged" cases where vessels have the wrong tags or some bags in a trip have missing tags (overlooked, fell off, etc.). In order to overcome some of the enforcement concerns, bag tags would have to be required to remain on the bags through the first point of sale beyond the dock or the likelihood of bags being opened immediately upon landing will complicate enforceability. Possession of untagged bags would need to be a violation either on the vessel or at the dealer level.

Issues related to standard bag enforcement would require agents/officers to measure bags unless there is a standardized/certified bags. The level of enforcement resources needed to empty bags in order to measure and ensure compliance with standard bag dimensions during boardings would not be feasible. If this alternative were adopted, the standard bag material would have to be identified, the dimensions set and consideration of a “certification process” would need to be considered.

With the ease of being able to offload untagged bags if enforcement is not present at the moment of landing, this alternative may not be as effective at preventing trip limit violations as is projected. If this alternative becomes a preferred alternative by the council, it should be anticipated that it will require an extensive regulatory scheme in order to add benefits to enforcement.

Bag tags and standard bags – Alternative 2

See above discussion on “bag tag” enforcement concerns.

Require vessels to make daily reports of vessel trip report (VTR) data through the vessel monitoring system (VMS)

The goal of improving the accuracy and monitoring of harvest information in a more “real time” manner is supported by enforcement. As explained below, there are enforcement concerns to the portion of this alternative proposing that these reports replace the VTRs currently signed and submitted by the vessel operator. Unless the accountability and accuracy concerns outlined below can be adequately addressed, enforcement can not support the replacement of the VTR through the use of daily electronic reports.

Replacement of vessel trip report (VTR) with effort reporting via VMS, real-time landings reporting by dealers, and discard characterization by enhanced observer coverage.

There is currently a strong reliance upon written reports in order to identify “knowing” violators from those simply making a mistake. Removal of the “paper trail” will increase the likelihood of enforcement resources being needed to respond to unintentional errors (entering the wrong electronic

information) in order to determine veracity of suspected violations. In addition, there is a strong enforcement need to be able to definitively identify the individual responsible for making the report (i.e. signature). If this alternative is to be enforceable, technology for electronic signatures as well as the legality of accepting electronic signatures through the VMS unit must be examined and fully analyzed. Until such time that the verification of the reporting person's identity is possible and methods for minimizing unintentional errors, there will remain a need from the enforcement community to have a written record retained/submitted. One potential solution for this alternative would be use of an electronic signature or code combined with a print out capability which would allow the report to be submitted electronically while a copy of the report must be printed, signed and retained by the responsible party.

Require all limited access vessels to operate a vessel monitoring system (VMS)

Under this alternative, the term "limited access vessels" means "occasional" scallop fishing vessels. Enforcement supports the goal of this alternative to ensure "equitable" monitoring for the various sectors of the scallop fishing vessels. In addition, VMS has demonstrated its ability as a reliable enforcement tool and increased use would likely enhance enforceability of several provisions being considered by amendment 10. One caveat which must be considered in evaluating any increase in VMS use is that expansion of the system will likely require an increase in enforcement resources in order to adequately monitor the increased number of vessels operating under the VMS system.

Scientific resource surveys conducted with industry vessels and crew, funded by TAC/day-at-sea set-aside and authorized as scientific research

No enforcement related concerns exist in this alternative beyond the need for enforcement to have prior notification of authorized scientific research activities which would otherwise be a violation of existing regulations (i.e. in closed area, prohibited gear type, exceeding possession limits etc.).

8.9.6 Alternatives For Enabling Scallop Research

The only enforcement related concern in this section of amendments is the need for prior notification of vessels authorized to conduct research or experimental fishing. In addition, enforcement must have knowledge of the research authorized (i.e. surveys in closed areas, use of unlawful gear etc.). Prior notice is required in order to ensure patrolling aircraft and vessels can be notified on the research ahead of time. Vessels conducting scientific research or experimental fishing should also be required to have onboard a letter of authorization of experimental fishing permit onboard the vessel to present to boarding personnel if necessary. It also seems reasonable that only vessels that have no significant violations would be allowed to participate, unless authorized by NOAA GCEL.