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Northeast Multispecies Fishery Capacity Reduction Program

Fishing Capacity Buyout Prospectus

The Multispecies Capacity Reduction Committee

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1.0 Introduction

The oft-quoted axiom “too many boats chasing too few fish” has proved somewhat true for New England groundfish fisherman over the past fifteen years. In a long, drawn-out attempt to rebuild stocks and end overfishing, the groundfish fishery has endured years, if not decades, of increasing regulation and decreasing profits. Average available fishing days have dropped from approx 116 in 1996 to just 48 (Category ‘A’ Days-at-Sea) in 2006. Regulatory restrictions including area closures, trip limits and, more recently, differential Days-at-Sea counting have made using these allocated fishing days increasingly difficult.

There is no guarantee that things will improve in the short term. Despite increases in the health of several key groundfish stocks, revenues from groundfish fishing have declined roughly 30% between 2001 and 2005 (NEFMC 2006). Amendment 13 to the groundfish management plan contains default measures for 2009 that, if implemented, will further reduce Days-at-Sea allocations as well as potentially trigger a new round of trip limits and area closures. Eventually the stocks are predicted to rebuild, and long-term future landings are predicted to be significantly higher than they are today. But again, there are no guarantees that these landings will be realized.

A groundfish fishing capacity reduction program is being developed through collaborative efforts by members of the groundfish fishing industry, with coordination provided by the State of Massachusetts. This is an industry-led attempt to improve the financial future of the groundfish fishery while allowing those who would like to exit the fishery a legitimate, sensible way of doing so. Reducing capacity through an industry-funded buyout will have long-term benefits to the resource and the fishery. Short-term benefits may be felt if the buyout reduces the number of used Days-at-Sea below current levels. If this were to happen, pressure on the resource may be alleviated and stocks may rebuild faster. Regulations could potentially be relaxed sooner than they could be without the buyout. But there are no guarantees. Ultimately, each permit holder will have to judge for them self what the future of the fishery will look like, and what they expect their place in it to be.

2.0 Executive Summary

A groundfish fishing capacity reduction program is being developed through collaborative efforts by members of the groundfish fishing industry, with coordination provided by the State of Massachusetts. This is an industry-led attempt to improve the financial future of the groundfish fishery while allowing those who would like to exit the fishery a legitimate, sensible way of doing so.

Objectives

The capacity reduction program consists of the following four objectives:

1. *To permanently reduce fishing capacity in the northeast multispecies fishery*
2. *To provide those wishing to leave the groundfish fishery with a legitimate, financially sensible way of doing so*
3. *To preserve the essential character of the New England groundfish fleet by not targeting any one gear type, size class or geography for buyout*
4. *To ensure that the benefits to those remaining in the industry justify the costs of the loan*

Authorized Participants

All vessels holding a valid, current Northeast Multispecies Limited Access fishing permit with allocated Category A, B or C Days-at-Sea may participate in this program.

Cost of capacity reduction

To reduce capacity, the federal government will guarantee a loan of between \$75 and \$150 million to the groundfish industry. The money will be used to purchase groundfish fishing capacity, as measured by a combination of permitted fishery access, vessel length and horsepower. Note that only groundfish fishing capacity will be bought out with this loan. Options for retiring other fishery permits are presented, but they do not use groundfish industry funds.

Loan repayment

To repay the loan, a fee of approximately three percent will be assessed on all landings from trips made on multispecies Days-at-Sea. The loan is expected to be repaid in full in 30 years.

Minimum capacity reduction

A minimum of 25% of the groundfish fleet's estimated capacity must be removed. If this amount is not met, the buyout program will not proceed.

Referenda and order of events

Permit holders will have two opportunities to formally vote on the capacity reduction program. The objective of the first referendum is to gauge industry support of the proposed program and determine if the committee should continue with their efforts.

If the industry is generally supportive, the U. S. Congress will be asked to pass legislation authorizing the loan and any other funding required by the program. This legislation will spell out the sequence of events for the remainder of the program, and will authorize the National Oceanic and Atmospheric Administration to issue a letter to all permit holders

soliciting binding bids for the surrender of their fisheries permits (as outlined in the Prospectus document).

After bids have been received and ranked, and the amount of capacity to be removed from the fishery has been estimated (and assuming that the minimum amount of capacity was retired), a second, binding referendum will be administered by NOAA to determine if the program will go through. In order for the program to proceed, more than 50% of the votes received must be in favor of the capacity reduction program.

Counting votes

For each category 'A' Day-at-Sea held, the permit holder will receive four votes. For each category 'B' Day-at-Sea held, the permit holder will receive two votes. For each category 'C' Day-at-Sea held, the permit holder will receive one vote.

Method of capacity reduction

Category 'A' and 'B' Days-at-Sea permit holders:

All category 'A' and 'B' Days-at-Sea permit holders will be allowed to submit a bid equal to the amount that they would accept for the retirement of their federal fisheries permit or permits. This proposal contains several options detailing exactly what the permit holders will be expected to retire with the acceptance of their bids. Additional lump sum payouts are available for category 'C' Days-at-Sea and for voluntarily electing to scrap vessels.

Category 'C' Days-at-Sea (only) permit holders:

All permit holders allocated 'C' Days-at-Sea will be allowed to receive a lump sum payment in the amount of \$100 per category 'C' Day-at-Sea held. The Buyout will also purchase 'C'-Day-at-Sea permits from those who choose to remain in the fishery

Alternatives for reducing capacity for 'A' and 'B' DAS permit holders

The document contains three options for what must be retired if a bid is accepted. Only one of these three options will be part of the final proposed Buyout Prospectus. In any case where a permit holder retires a northeast multispecies permit to the Buyout, landings history is also surrendered.

Alternative 1: Surrender of groundfish permits only, with unlimited future use for the vessel attached to that groundfish permit.

Alternative 2: Surrender of all federal and state fisheries permits. See *Disposition of non-groundfish federal fisheries permits* and *Options for the disposition of vessels*, below.

Alternative 3: Threshold for determining what must be retired. If less than 25% of a permit holder's reported gross revenue between 1996 and 2001 was derived from trips made on groundfish Days-at-Sea, or if less than 15 category 'A' Days-at-Sea are allocated to that permit, only the permit holder's groundfish permit must be surrendered. If more than 25% of their reported gross revenues were derived from trips made on groundfish Days-at-Sea, all federal and state fishing permits must be surrendered. See *Disposition of non-groundfish federal fisheries permits* and *Options for the disposition of vessels*, below.

Disposition of non-groundfish federal fisheries permits for 'A' and 'B' DAS permit holders

If either Alternative 2 or Alternative 3 is chosen, some or all permit holders with accepted bids will be required to surrender all of their federal fisheries permits. A lump-sum payout will be issued for the value of these permits. Groundfish industry loan funds will not be used in the buyout of other fishery permits, the source of this payment is from a federal allocation separate from the groundfish industry loan. This payout will be in addition to the amount bid (and paid) as part of the groundfish fishery capacity buyout. The amount of the payout will be equal to one and a half times the documented average annual revenues from 2003-2005 derived from any or all of the American lobster, black sea bass, monkfish, scup, squid/mackerel/butterfish, and summer flounder fisheries, depending on which permits are held on the vessel in question.

Disposition of vessels for 'A' and 'B' DAS permit holders

If either Alternative 2 or Alternative 3 is chosen, some or all permit holders with accepted bids will be required to surrender all of their federal fisheries permits. The future use of vessels attached to permits that have been successfully surrendered through the buyout is restricted. Bidders have three different choices for what to do with their vessel after a bid is accepted.

- (1) Restricted to non-fishing uses
- (2) Participate in a scrapping voucher program, where they sell their vessel to another permit holder in a federally permitted fishery and that permit holder scraps their vessel.
- (3) Participate in the voluntary vessel scrapping program, where permit holders are issued a lump sum payout upon proof of scrapping for an amount equal to \$500 per registered foot of vessel length.

Conclusion

The proposed capacity reduction program is an opportunity that allows the industry to invest in its own future. Feedback from the industry and interested parties on the material presented in the Prospectus will help create a program that benefits the groundfish resource, the groundfish fishery, and the fishing communities of New England. Please realize that this is a draft proposal, which is being use to stimulate discussion on the issue. The specifics of the draft may change based on feedback. Everyone is encouraged to refer frequently to the web site, www.nebuyout.org, to see the most recent version of the document as well as any updates on meeting announcements, etc.

3.0 Program description

This proposal is for an industry-funded buyout that will be authorized by Congressional legislation. All Limited Access Northeast Multispecies permit holders may participate, though the obligations for permit holders who chose to participate may differ depending on several factors. The program will be subject to two referenda, one non-binding and one binding, and seeks to reduce current groundfish fleet capacity by no less than 25%. Permit holders who participate in the program will receive a lump sum payment in exchange for the surrender of one or all of their fishery permits (which includes associated landings history) and any other obligations noted in this document. The loan paying for the capacity reduction will be repaid by the groundfish industry over the course of 30 years.

3.1 Objectives

This is an industry-led attempt to improve the financial future of the groundfish fishery while allowing those who would like to exit the fishery a legitimate, sensible way of doing so. The program has the following four objectives:

(1) To permanently reduce fishing capacity in the northeast multispecies fishery.

Fishing capacity in the context of this buyout refers to the ability to convert fishery access (a permit with allocated Days-at-Sea) into fishing mortality. Because no two permits will have an identical impact on the groundfish resource, this buyout seeks to permanently remove fishing capacity as defined by a combination of a permitted vessel's length, horsepower, and permit history (documented landings).

(2) To provide those wishing to leave the groundfish fishery with a legitimate, financially sensible way of doing so.

There is a tremendous amount of uncertainty about the future of the fishery. Many permit holders may want to leave the groundfish fishery altogether, but are waiting for the right time to do so. This buyout provides them with a financially sound, reasonable way to leave the fishery.

(3) To preserve the essential character of the New England groundfish fleet by not targeting any one gear type, size class or geography for buyout.

No geographic area, gear-type or vessel size class will be targeted by the design of this buyout program. This is not to say that certain geographies, gear types or vessel size classes will not be disproportionately impacted by a buyout, because that may happen in due course. Rather, the provisions of this buyout will not intentionally advantage or disadvantage any particular portion of the industry through the solicitation, ranking and/or acceptance of bids.

(4) To ensure that the benefits to those remaining in the industry justify the costs of the loan.

The program should result in a positive return on investment for those who pay into it. In the long term, almost any amount of capacity removed from the fishery will provide a benefit; when the resource rebounds, even latent or underutilized capacity retired through this program won't be able to be reactivated. Short and/or medium term benefits will come from any sizable capacity reductions—reductions significant enough to have a positive impact on mortality over the next two to five years. Each

permit holder will have to use their own judgment and experience to determine if this objective is likely to be met.

3.2 Authorized participants

All vessels holding a valid, current Northeast Multispecies Limited Access fishing permit with allocated Category A, B (regular), B (reserve) or C Days-at-Sea may participate in this program (referred to hereafter as “permit holders” and/or “bidders”). The method of participation differs between those allocated Category A or B Days-at-Sea and those allocated Category C Days-at-Sea.

All permit holders allocated Category A and B Days-at-Sea will be entitled to submit a bid based on the amount they would require to surrender their groundfish permit, all of their permits, or the permit and vessel (the asset to be surrendered will depend upon which of the various options, described in this document, are selected for the final buyout program). Prior to submitting bids, the permit holder will be informed of which assets specifically they will be surrendering as a condition of an accepted bid. Details of the program as it applies to permit holders with allocated Category A and B Days-at-Sea can be found beginning with Section 4.0 (found on page 12).

All permit holders allocated Category C Days-at-Sea (only) will be entitled to receive a lump sum payment for the surrender of their groundfish permit. Details of the program as it applies to permit holders with allocated Category C Days-at-Sea (only) can be found beginning with Section 5.0 (on page 18).

3.3 Referenda

Two referenda will be held in conjunction with this program. The first will be held late summer, 2006. The second will be held approximately six months after legislation enabling the buyout program is passed by Congress. Copies of the proposed Buyback Prospectus together with referendum ballots will be mailed to the addresses on file for all groundfish permit holders. Both referenda will be conducted both electronically and by mail by a third party to assure integrity.

The purpose of the **non-binding** first referendum is to gauge the industry’s level of support for the Buyout, and to determine if the Ctte should seek Congressional action given the information presented to permit holders thus far. The committee may feel it necessary to ask permit holders additional questions regarding their level of support.

The second referendum will be administered by NOAA at the direction of Congress after enabling legislation has been passed. Prior to the second referendum, a copy of the final Buyback Prospectus will be mailed together with a binding bid submission package. Note that all bids will be submitted **prior to** the mailing of the second referendum. After the bid submission date passes, the second referendum will be mailed to all permit holders. In order for the buyout to proceed, more than **50% of the votes received** must be in favor of the buyout program.

All groundfish permit holders will have the right to vote in both referenda. However, because the loan will be repaid by revenues derived from groundfish trips only (i.e. revenues

from landings on a Category ‘A’ or ‘B’ Day-at-Sea), votes will be weighted to reflect the increased burdens (as well as the long-term benefits) that the buyout imposes on these permit holders. A permit holder will cast all votes in favor of or in opposition to the final buyout proposal.

For all permit holders, votes in each referendum will be counted as follows:

- Four votes for each A Day-at-Sea held
- Two votes for each B Day-at-Sea held
- One vote for each C Day-at-Sea held

Mathematically, the total number of votes for a permit holder would be:

$$[‘A’ DAS * 4] + [‘B’ DAS * 2] + [‘C’ DAS]$$

3.4 Cost of desired capacity reduction

To reduce capacity in the groundfish fishery, a federally-backed loan of \$100 million dollars (the final amount will be between \$75 and \$150 million dollars) will be taken out by the groundfish industry. The loan will be repaid, at the prevailing Treasury Department interest rate (Constant Maturity Treasury rates) at the time of loan inception, by revenues from the groundfish fishery.

The basis for this amount can be found in Section 6.0 of this document (found on page 18).

There are options requiring permit holders to retire all federal and state fishery permits in this document. In these cases, a separate federal allocation not linked to the funds for the loan will be used to buy the non-groundfish permits held on participating vessels. This allocation will be added to the total cost of desired capacity reduction program, but it will not be subtracted from the loan sought by the groundfish industry.

3.5 Minimum capacity reduction to be achieved

The buyout program must reduce total capacity by no less than 25% in order to proceed. If, after all bids have been evaluated and accepted bids selected, this target is not reached, the buyout will not proceed. Methods of quantifying capacity and capacity reduction with respect to this program is discussed in Section 4.6 (found on page 17).

3.6 Payout to permit holders

All permit holders with accepted bids will be issued a lump-sum payment by the federal government for the amount of their submitted bid, plus any amounts added to this under the terms of Section 4.0 (“Participation requirements for A and B DAS permit holders”) of this document (found on page 12).

For federal income tax purposes, this payment may be treated as ordinary income (if the permit has been held for less than one year) or as capital gains (if the permit has been held for more than one year).

3.7 Disposition of payouts

Permit holders may, if they so chose, deposit the entire sum into a standard IRA, SEP or Simple Plan account ????

3.8 Fee collection

A fee of 3% (final fee will be between 2% and 5%) of gross revenues on all groundfish trips will be assessed at the dealer upon weighout. The final fee will be based upon the total amount of the loan and the interest rate prevailing at the time of inception. It is understood that the fee assessment will be set at the **lowest possible level** while allowing the industry to repay the loan in the maximum time allotted (assumed to be 30 years).

The total fee assessed to a vessel upon landing will be deposited by the seafood dealer into a separate, government-owned deposit-only account. The account will be cleared at specified intervals until the total amount of the buyout loan, plus interest, is repaid.

4.0 Participation requirements for A and B DAS permit holders

The following requirements pertain to permit holders allocated Category A and B Days-at-Sea. Several participation requirements are proposed, as well as three capacity reduction options that specify the how capacity will be reduced through the buyout program. A strategy for the disposition of vessels after surrendering permits (if applicable) is also proposed.

4.1 Binding nature of the contract

Bids submitted under this program will be irrevocable, binding contracts with the federal government. Requirements for the surrender of federal and state fisheries permits and other obligations are outlined in this document.

Several options currently exist that will change the obligations of a permit holder if their bid is accepted (e.g. surrender of only the groundfish permit, surrender of all state and federal fisheries permits, or surrender of all permits and the scrapping of the permitted vessel). The specifics of what is being surrendered through the buyout may be specific to a particular vessel, in which case these details would be specified in a letter to the individual permit holders.

4.2 Requirements for all bidders

No permit holder submitting a bid may transfer, upgrade or otherwise make alterations to the groundfish permit associated with that bid after the date their bid was submitted. Any requests for permit transfer, upgrade or other alterations will be held by the NOAA NMFS Northeast Regional Office until after such time as the buyout program has accepted bids, and only applications for alterations to permits unaffected by the buyout will be processed.

4.3 Ranking and acceptance of bids

The buyout program will use a reverse-auction bidding system, where bids are ranked based on the ratio of a permit's capacity to the bid submitted. The formula used to rank bids is:

$$\frac{\text{submitted bid}}{(\text{capacity units} * \text{catch history multiplier} * \text{allocated 'A' and 'B' DAS})}$$

All permit holders will receive, as part of their bid submission package, their estimated capacity units, catch history multiplier, and allocated Category 'A' and 'B' Days-at-Sea.. For details on how these numbers are calculated, see Sections 4.6 and 4.7 (found on page 17).

The resulting number for all bidders will be sorted from lowest to highest and, beginning with the lowest number, bids will be accepted until the funds available for capacity reduction are exhausted. As previously stated, the amount paid to each bidder will be equal to the amount of the bid, plus any additional lump sum payments as specified in this document (e.g. Sections 4.4, 4.5.3.1).

4.4 Voluntary vessel scrapping

Permit holders with accepted bids who wish to scrap their vessel for any reason may elect to receive an additional lump sum payment in the amount of \$500 for every foot of registered length. Participation in this program is restricted to vessels that have:

- Held a federal fishing permit for at least the previous 3 years (with the exception of vessels built within that 3 year period)
- Documented landings greater than 5,000 lbs in any federally permitted fishery in two of those three years.

A signed letter from a state-licensed (certified?) surveyor indicating the length, documentation and permit numbers of the scrapped vessel will be required, and payment will be issued once proof of scrapping has been shown.

4.5 Alternatives for reducing capacity

Nearly all permit holders authorized to participate in this program hold permits in other fisheries. The following three options present different strategies for reducing groundfish fishing capacity. The first requires only that groundfish permits be surrendered upon acceptance of a bid. The second requires the surrender of all permits held by the bidder. The third establishes a threshold allowance for permit surrender—groundfish permits only under some circumstances, and all federal/state fishery permits under other circumstances. These options are presented for public comment and only one of these strategies will be used as the basis for the final buyout program.

4.5.1 Alternative 1: Surrender of groundfish permit

Bidders are required to surrender only their groundfish permit upon acceptance of their bid. Monkfish Category 'C' permits held by bidders are converted to Category 'A' permits, and monkfish Category 'D' permits will be converted to Category 'B' permits. *Any changes in the status of a federal skate fishery permit are not clear at this time.*

4.5.2 Alternative 2: Surrender of all permits

Bidders are required to surrender all federal permits upon acceptance of their bid. Permits for state waters fisheries will be revoked by the appropriate State agency.

4.5.2.1 *Disposition of non-groundfish permits*

Permit holders with accepted bids will have an additional payment added to their bid amount if they possess any of the following moratorium permits:

- American lobster (Category A1, A2, A23, A3, A4, A5, A5W, A6 and AOC)
- Black sea bass (Category 1)
- Monkfish (Category A, B, C, D and F)
- Scup (Category 1)
- Squid/mackerel/butterfish (Category 1, 4 and 5)
- Summer flounder (Category 1)

The size of the payment will be equal to a number between **one and a half (1.5) times and three (3) times the documented average annual revenues** 2003-2005 derived from landings of species for which any or all of the above permits are held, and landed on trips where no groundfish was landed. The maximum amount payable per permit holder under this provision is \$500,000.

Groundfish industry loan funds will not be used in the buyout of other fishery permits. The source of this payment is from a federal allocation separate from the groundfish industry loan.

Individuals in possession of open access permits are entitled to transfer their open access permits and associated history to another platform, provided that the transfer takes place within one year of the cancellation, as per the buyout, of that permit holder's groundfish permit.

4.5.2.2 *Disposition of vessels*

Vessels associated with accepted bids must be disposed of in one of three ways:

4.5.2.2.1 *Non-fisheries uses*

Vessels may be utilized domestically or abroad for research, including fisheries research, education, training, humanitarian, safety or law enforcement purposes, provided that (a) a provision be placed in the title that the vessel be scrapped once the purpose for which it was transferred had been completed, and (b) that the vessel is permanently prohibited from holding a fishing permit in any fishery, domestic or international.

4.5.2.2.2 Scrapping Voucher Program

This choice allows permit holders with accepted bids to sell their physical assets (hull, equipment, etc.) to any current permit holder in any fishery as a replacement vessel, under the condition that this buyer scrap the vessel being replaced. This provides an opportunity to improve/upgrade the remaining fleet by exchanging older or less capable vessels for newer and safer vessels. Any exchange of vessels under this option must be consistent with upgrade restrictions, if applicable, as noted below.

Owners of vessels retiring all federal fishery permits through the buyout program may, if they so choose, be issued a Vessel Scrapping Voucher. This Voucher entitles the vessel owner to sell their vessel to any interested buyer who owns an existing vessel and possesses valid federal permits in any U.S. fishery. At the time of the vessel's sale, the Vessel Scrapping Voucher will be transferred to the owner of the vessel being replaced, and this vessel must then be scrapped within a period of six months.

After the vessel is scrapped, the Voucher may be submitted, with proof of scrapping, in accordance with the Voluntary Vessel Scrapping provisions described in Section 4.4 (found on page 13). Payments under the Voucher Program would be issued in proportion to the length of the vessel being scrapped and not the vessel that surrendered its permits through the buyout program.

Only vessels required to surrender all federal fishery permits through the buyout program may participate in the Scrapping Voucher Program.

The vessel being scrapped must:

- Hold a federal fishing permit for at least the previous 3 years (with the exception of vessels built within that 3 year period)
- Have documented landings greater than 5000 lbs in any federally permitted fishery in two of those three years.

4.5.2.2.3 Voluntary scrapping

Any permit holders with accepted bids may elect to participate in the Voluntary Vessel Scrapping Program, as described in Section 4.4 (found on page 13).

4.5.3 Alternative 3: Threshold for surrender of all permits

If **less than 25%** of a permit holder's reported gross revenue between 1996-2001 was derived from trips made on groundfish Days-at-Sea, or if less than 15 Category 'A' Days-at-Sea are allocated to that permit, bidders may opt to surrender their groundfish permit only (as opposed to all federal permits). Under this provision, Monkfish Category 'C' permits held by bidders will be converted to Category 'A' permits, and Monkfish Category 'D' permits will be converted to Category 'B' permits..

If **25% or more** of their reported gross revenues between 1996-2001 was derived from trips made on groundfish Days-at-Sea, bidders are required to surrender all federal fishing permits. Permits for state waters fisheries will be revoked by the appropriate State agency.

Revenues from open access permits will be included when calculating this threshold.

4.5.3.1 Disposition of non-groundfish permits for permits above the threshold

Permit holders that meet or exceed the 25% threshold noted above will have an additional payment added to their bid amount if they possess any of the following moratorium permits:

- American lobster (Category A1, A2, A23, A3, A4, A5, A5W, A6 and AOC)
- Black sea bass (Category 1)
- Monkfish (Category A, B, C, D and F)
- Scup (Category 1)
- Squid/mackerel/butterfish (Category 1, 4 and 5)
- Summer flounder (Category 1)

The size of the payment will be equal to a number between **one and a half (1.5) times and three (3) times the documented average annual revenues 2003-2005** derived from landings of species for which any or all of the above permits are held, and landed on trips where no groundfish was landed. The maximum amount payable per permit holder under this provision is \$500,000.

Groundfish industry loan funds will not be used in the buyout of other fishery permits. The source of this payment is from a federal allocation separate from the groundfish industry loan.

Individuals in possession of open access permits are entitled to retain their permits and associated history.

4.5.3.2 Disposition of vessels

Vessels associated with accepted bids must be disposed of in one of three ways:

4.5.3.2.1 Non-fisheries uses

Vessels may be utilized domestically or abroad for research, including fisheries research, education, training, humanitarian, safety or law enforcement purposes, provided that (a) a provision be placed in the title that the vessel be scrapped once the purpose for which it was transferred had been completed, and (b) that the vessel is permanently prohibited from holding a fishing permit in any fishery, domestic or international.

4.5.3.2.2 Scrapping Voucher Program

This choice allows permit holders with accepted bids to sell their physical assets (hull, equipment, etc.) to any current permit holder in any fishery as a replacement vessel, under the condition that this buyer scrap the vessel being replaced. This provides an opportunity to improve/upgrade the remaining fleet by exchanging older or less capable vessels for newer and safer vessels. Any exchange of vessels under this option must be consistent with upgrade restrictions, if applicable, as noted below.

Owners of vessels retiring all federal fishery permits through the buyout program may, if they so choose, be issued a Vessel Scrapping Voucher. This Voucher entitles the vessel owner to sell their vessel to any interested buyer who owns an existing vessel and possesses valid federal permits in any U.S. fishery. At the time of the vessel's sale, the Vessel Scrapping Voucher will be transferred to the owner of the vessel being replaced, and this vessel must then be scrapped within a period of six months.

After the vessel is scrapped, the Voucher may be submitted, with proof of scrapping, in accordance with the Voluntary Vessel Scrapping provisions described in Section 4.4 (found on page 13). Payments under the Voucher Program would be issued in proportion to the length of the vessel being scrapped and not the vessel that surrendered its permits through the buyout program.

Only vessels required to surrender all federal fishery permits through the buyout program may participate in the Scrapping Voucher Program.

The vessel being scrapped must:

- Hold a federal fishing permit for at least the previous 3 years (with the exception of vessels built within that 3 year period)
- Have documented landings greater than 5000 lbs in any federally permitted fishery in two of those three years.

4.5.3.2.3 Voluntary scrapping

Any permit holders with accepted bids may elect to participate in the Voluntary Vessel Scrapping Program, as described in Section 4.4 (found on page 13).

4.5.4 C-DAS

Any A & B DAS permit holder with C-DAS associated with their permit can sell their C-DAS even if they choose not to submit a bid in the Buyout. The payment is \$100 per C-DAS.

4.6 Calculating capacity

The baseline characteristics of each permit would be based upon the current NERO files for vessel replacement and expanded to include allowable upgrades. In other words, each permit is treated as if it was fully upgraded from the baselines as corrected in each vessel's individual

NERO file. The Days-at-Sea leasing and Days-at-Sea transferring baselines should only be used for estimating and preliminary purposes.

- Effective effort calculations will be based on a vessel's length and horsepower
- The formula for calculating the effective effort units is:

$$(-29 + (\text{VHP} * 1.64) + (\text{LEN} * 18.09)) * (\text{A \& B DAS}) = \text{Capacity Estimate}$$

4.7 Calculating the catch history multiplier

Catch history associated with a given permit will be factored into the bid ranking criteria. All permits would be grouped in order of their total landings of regulated groundfish between 1996 and 2001 (counting only landings in the top four of the six years) applied relative to vessels in each of the following four size classes: 0 - 29ft, 30 – 49ft, 50 – 74ft, 75ft and larger. Multipliers will be calculated as follows:

- Vessels in the fourth (bottom) quartile of a size class – CH multiplier = 1
- Vessels in the third quartile of a size class – CH multiplier = 1.1
- Vessels in the second quartile of a size class – CH multiplier = 1.2
- Vessels in the first (top) quartile of a size class – CH multiplier = 1.3

5.0 Participation requirements for C DAS (only) permit holders

Permit holders allocated only Category C Days-at-Sea may chose to receive a lump sum payment in exchange for the surrender of their groundfish permit. This payment will be in the amount of \$100 per Category C Day-at-Sea held. Permit holders who do not wish to participate in the program may retain their permit.

Lump sum payments to permit holders with Category C Days-at-Sea (only) will be limited to a total of \$5.7 million. Payments will be issued to permit holders in the order that their participation request is received (as noted by the date stamp on the envelope).

Legislation authorizing the buyout program will contain language to the effect that Category C Days-at-Sea will not be re-activated or otherwise used for fishing for groundfish until the total buyout loan amount is repaid to the federal government in full.

6.0 Basis for cost of capacity reduction

To establish the cost of desired capacity reduction in the groundfish fishery, landings projections for all groundfish stocks from 2006 – 2037 were produced by the NOAA Fisheries Northeast Fisheries Science Center. By applying a vetted, peer-review model estimating prices for these species, estimated revenues from these landings were generated.

Two sets of landings and revenues are provided here. The first is based on achieving a fishing mortality rate equal to F_{msy} for all years during the projection. The second, a 'best-guess' projection, is modified to accommodate several assumptions:

- The long-term fishing mortality rate will be Foy, not Fmsy (Foy is defined currently as 75% of Fmsy)
- Amendment 13 and Framework 42 measures will restrict harvests in the short and medium term, ensuring that landings commensurate with Foy cannot be achieved for nearly all stocks
- Georges Bank haddock landings will not be as high as Framework 42 predicts

Specific details of the methods used to generate these projections are included in **Appendix** **????**.

The long-term landings from the groundfish fishery are somewhat variable. Landing streams with a 90%, 50% and 10% likelihood of being achieved are reported here.

Figure 1 – Long-term “MSY” projections for landings of groundfish assuming, a mortality rate of F_{msy}

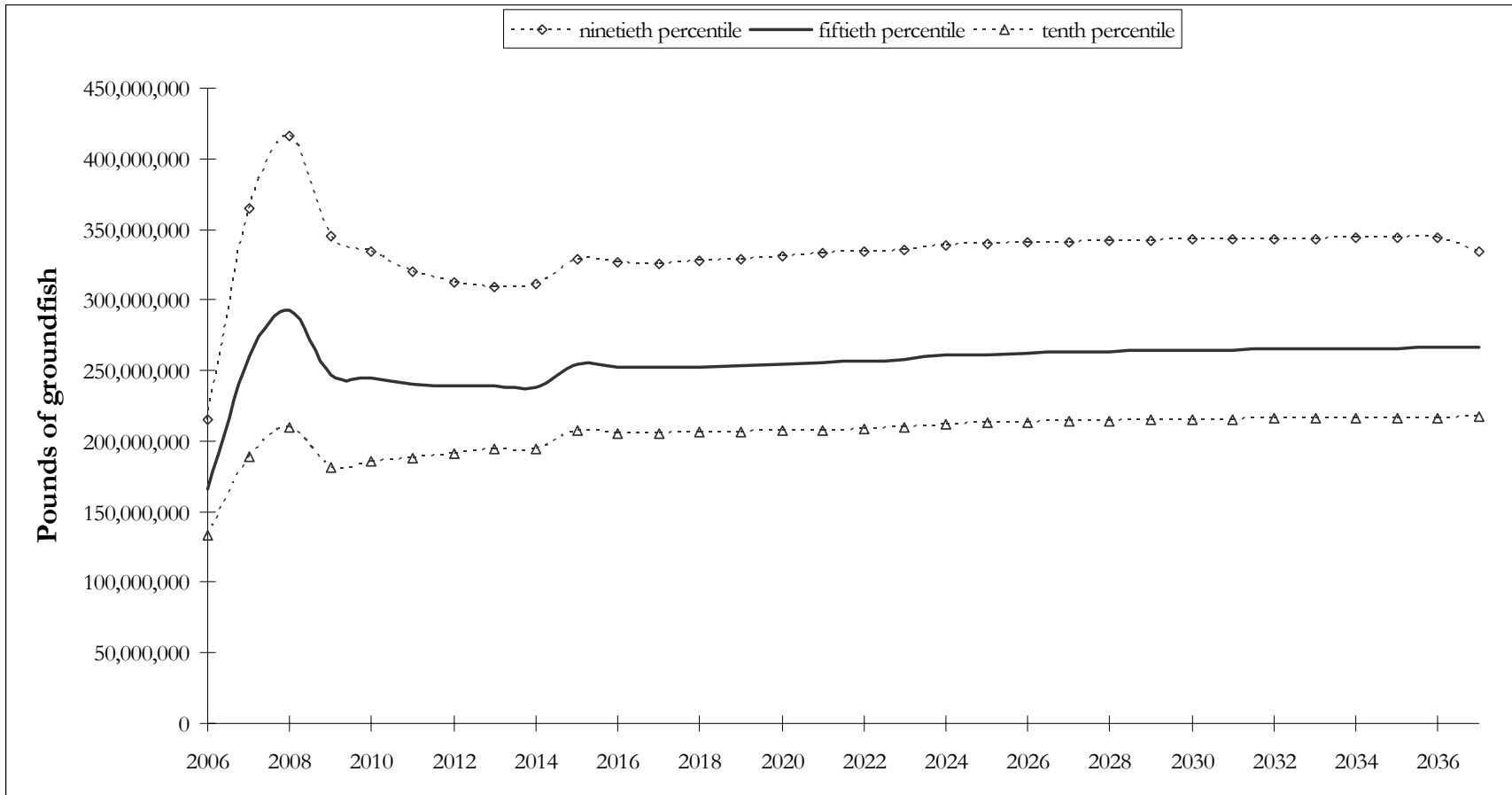


Figure 2 - Long-term “MSY” projections for revenues from groundfish landings, assuming a mortality rate of Fmsy

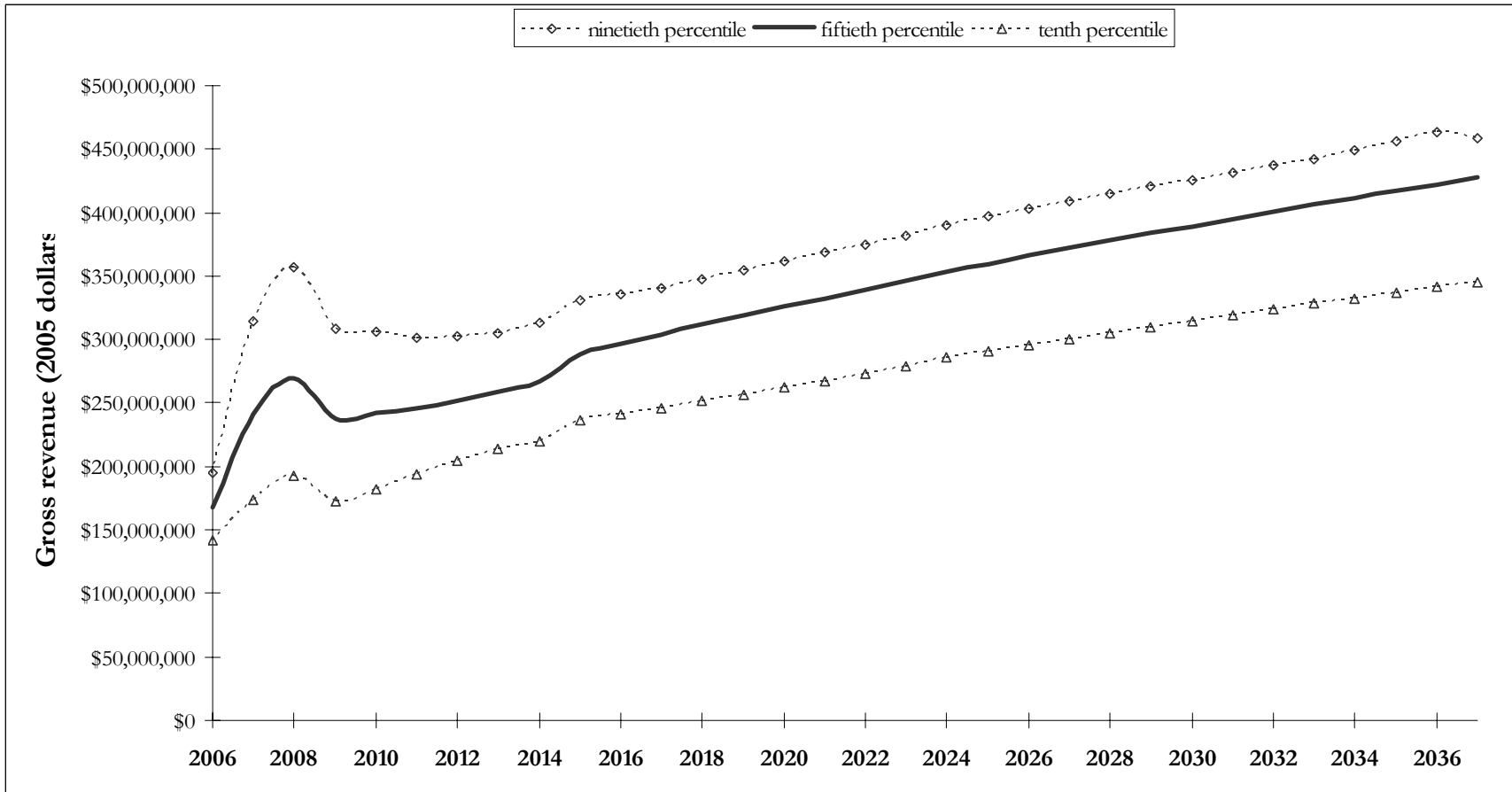


Figure 3 - Long-term “Best Guess” projections for landings of groundfish, assuming a mortality rate of Foy and other factors

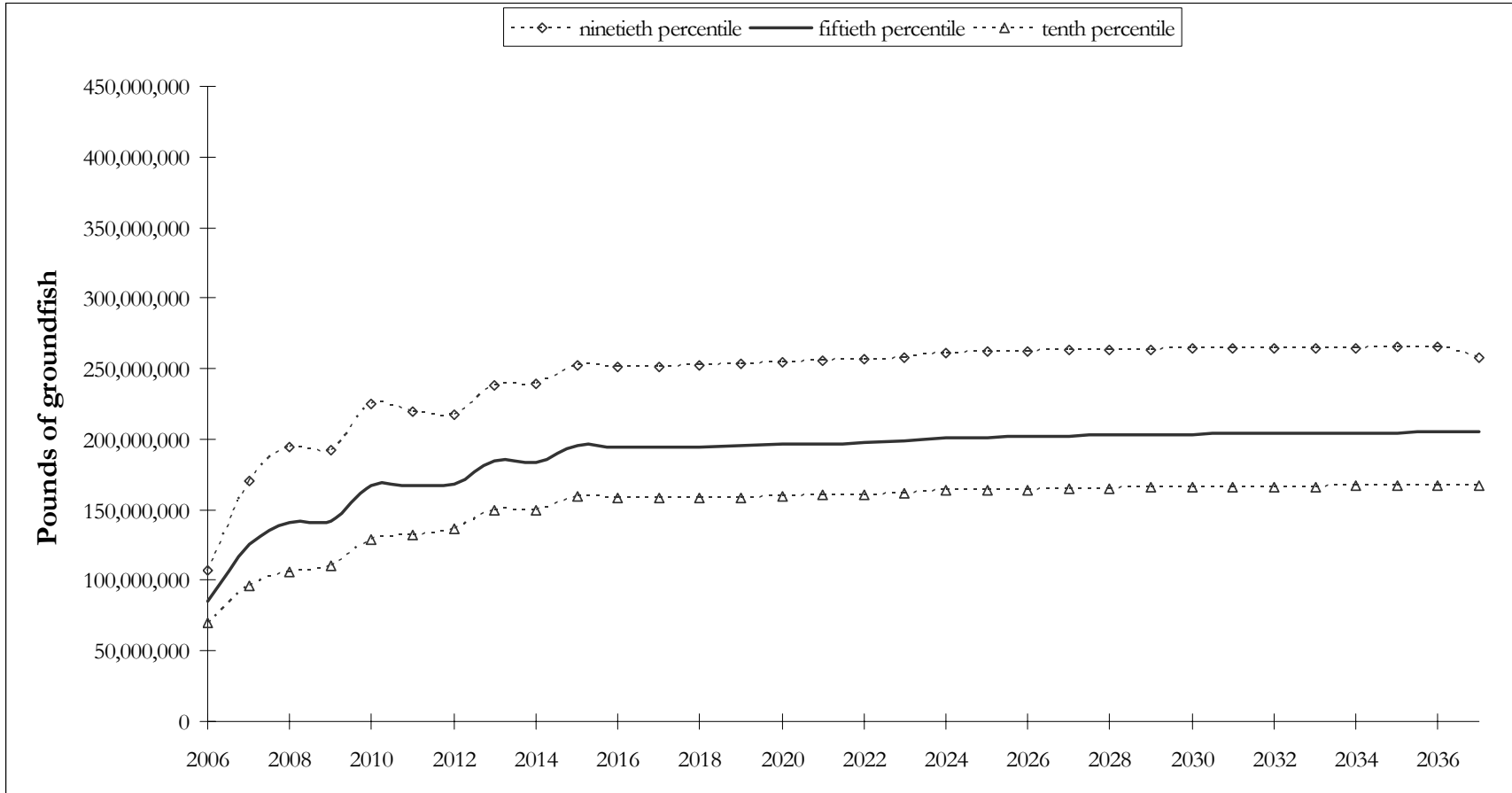


Figure 4 - Long-term “Best Guess” projections for revenues from landings of groundfish, assuming a mortality rate of Foy and other factors

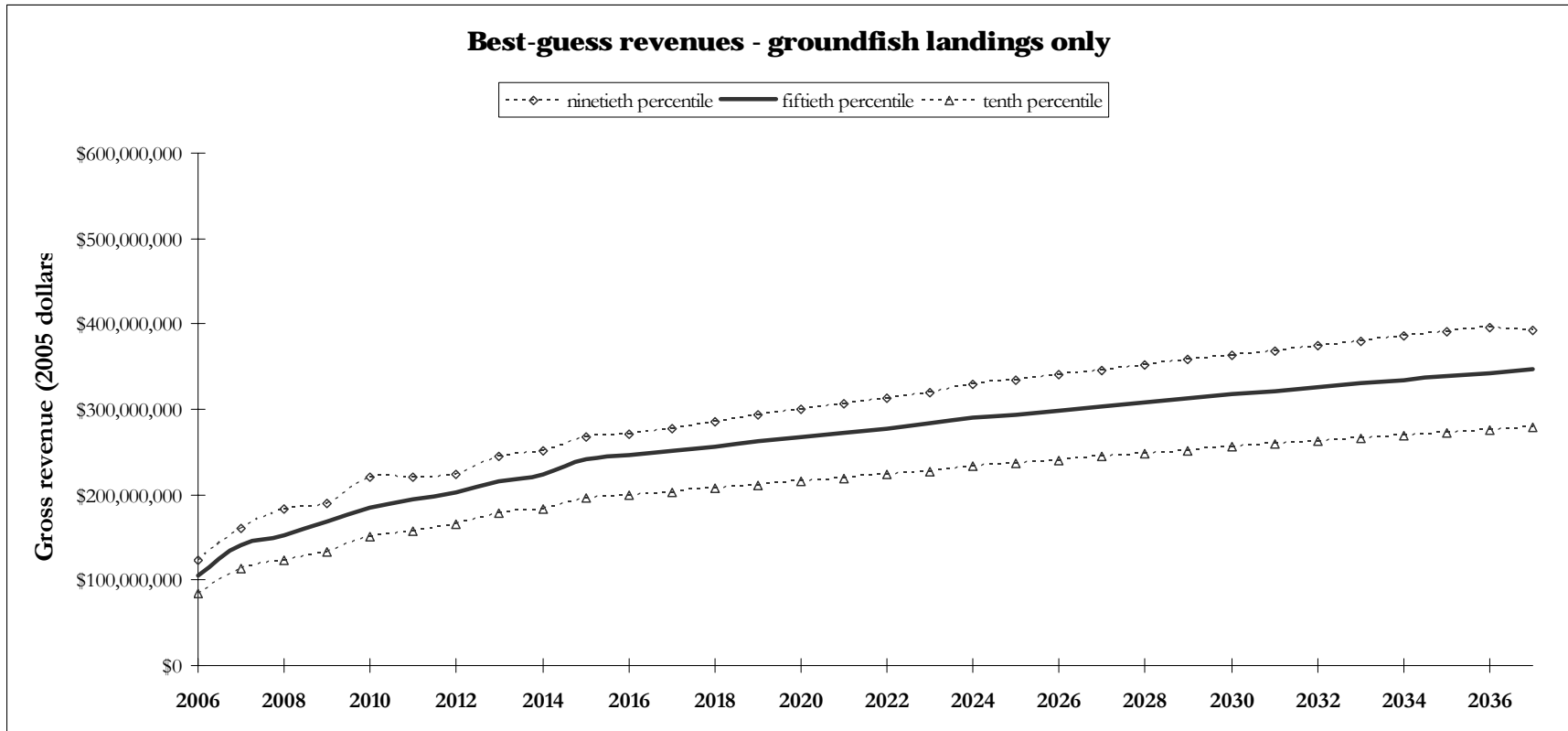


Figure 5 - Long-term “Best Guess” projections for revenues from all landings on groundfish trips, assuming a mortality rate of Foy and other factors

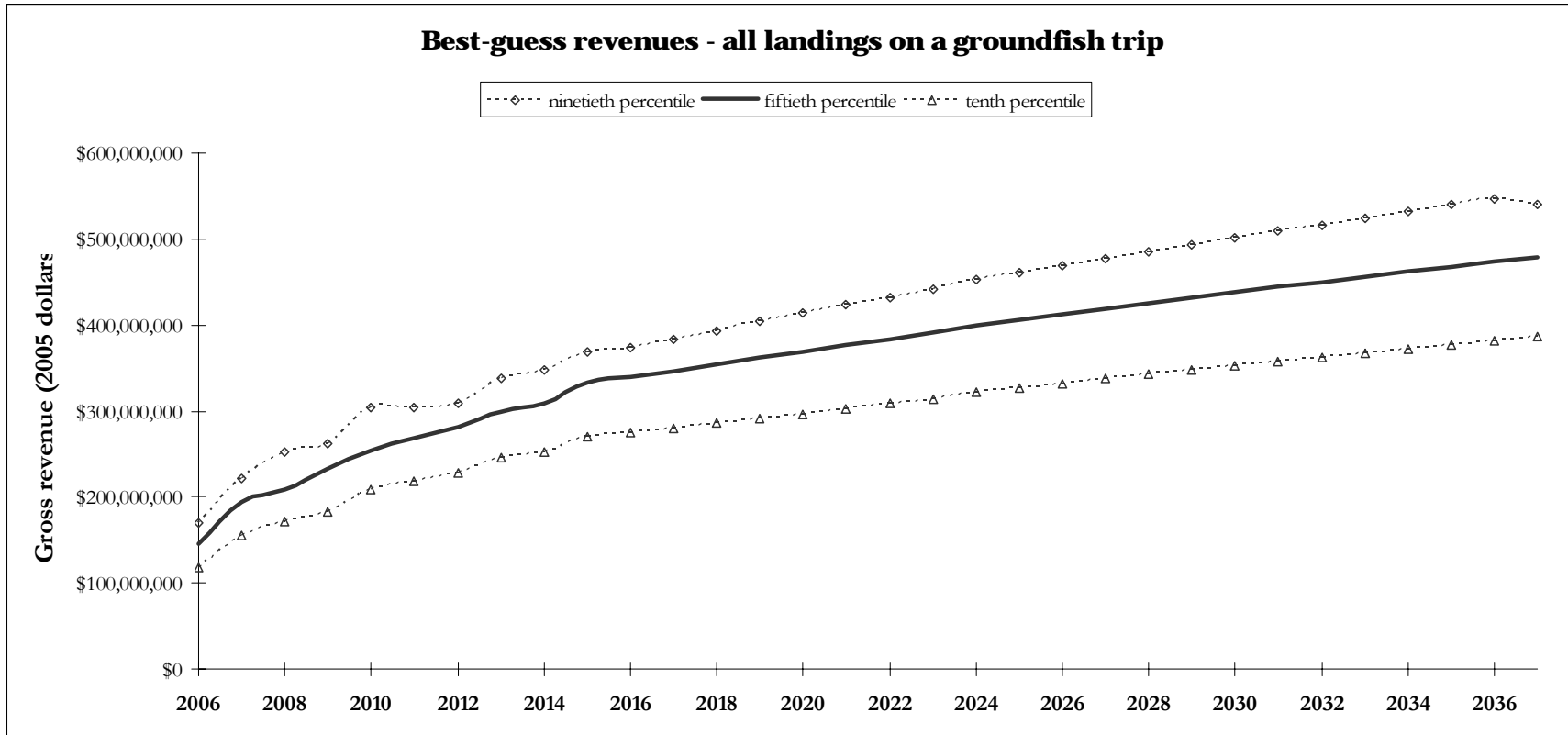


Table 1 – Loan repayment schedule for revenues generated from landing streams with a 90% probability (labeled '10%'), 50% probability (labeled '50%'), and 10% probability (labeled '90%') of being exceeded.

REPAYMENT BASED ON TOTAL LANDINGS ON GROUND FISH TRIPS (USING THE MEAN RATIO OF GROUND FISH LANDINGS/TOTAL LANDINGS FROM 1995-2005)			
Repayment with tax on landed revenues			
	10_%	50_%	90_%
2006	n/a	n/a	n/a
2007	\$101,260,507	\$100,291,660	\$99,578,811
2008	\$102,207,362	\$100,204,236	\$98,367,484
2009	\$102,890,927	\$99,516,225	\$96,842,138
2010	\$102,961,494	\$98,252,060	\$94,184,131
2011	\$102,790,160	\$96,573,725	\$91,365,017
2012	\$102,356,971	\$94,475,702	\$88,261,208
2013	\$101,431,184	\$91,814,990	\$84,277,671
2014	\$100,307,105	\$88,767,087	\$79,839,844
2015	\$98,654,593	\$84,924,995	\$74,631,285
2016	\$96,808,349	\$80,712,206	\$69,027,183
2017	\$94,741,790	\$76,099,170	\$62,890,728
2018	\$92,420,703	\$71,053,451	\$56,151,585
2019	\$89,843,819	\$65,553,802	\$48,796,500
2020	\$86,987,345	\$59,578,750	\$40,805,905
2021	\$83,836,778	\$53,107,631	\$32,155,217
2022	\$80,370,919	\$46,114,491	\$22,822,062
2023	\$76,579,975	\$38,573,321	\$12,768,308
2024	\$72,394,945	\$30,411,701	\$1,895,294
2025	\$67,853,579	\$21,659,042	\$0
2026	\$62,941,342	\$12,283,100	\$0
2027	\$57,636,900	\$2,253,171	\$0
2028	\$51,924,516	\$0	\$0
2029	\$45,781,950	\$0	\$0
2030	\$39,191,024	\$0	\$0
2031	\$32,131,473	\$0	\$0
2032	\$24,582,473	\$0	\$0
2033	\$16,512,652	\$0	\$0
2034	\$7,904,360	\$0	\$0
2035	\$0	\$0	\$0
2036	\$0	\$0	\$0
2037	\$0	\$0	\$0

7.0 Capacity reduction to be achieved

To be completed.

8.0 Timeline

September 11	Committee meeting
September 26	Target mailing date for non-binding referendum and prospectus to permit holders
October 18	Return straw poll ballots

-----**Contingent upon industry support**-----

Fall/Winter	Fishing Capacity Buyback Prospectus final draft available Promote Program/Authorizing legislation passed
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-----**As measured from passing of authorizing legislation**-----

Month 1	Initial notice published in Federal Register
Month 3	Final notice published in Federal Register, final bid solicitation letters mailed to authorized participants
Month 5	Bidding period opens
Month 6	Bidding period closes
Month 7	Referendum ballots mailed to authorized participants, voting period opens
Month 8	Voting period closes, Payment tender notice published in Federal Register
Month 9	Accepted bidders permanently cease fishing for groundfish
Months 9-10	Buyout proceeds distributed to accepted bidders

IF WE STAY ON THIS TIMELINE BUYBACK COMPLETED IN FALL 2007

9.0 Recommendations for the New England Fishery Management Council

9.1 Category C Days-at-Sea measures

9.2 Commercial and Recreational allocation measures

9.3 Permit splitting

10.0 Congressional actions

10.1 Enabling legislation

10.2 Funding for non-groundfish permits on buyout vessels

11.0 Background information

11.1 The groundfish fishery in the Northeast United States

The northwest Atlantic has provided fertile groundfish fishing grounds for centuries. Basque fisherman were known to fish the waters off Newfoundland, Nova Scotia and northeastern Canada for centuries before these areas were discovered by the explorers of the fifteenth and sixteenth centuries (Kurlansky 1997). Since this time, the northwestern Atlantic Ocean has yielded a bountiful natural resource that has, in recent times, strained under the weight of increased exploitation.

Two themes directly relevant to a buyout in the New England Groundfish Fishery emerge here. The first is that the complex regulatory structure that has evolved in New England has not only failed to prevent overfishing of the valuable groundfish resource, but it has created an inefficient fishing industry. The second theme is that regulatory decisions made by fisheries managers and Congress have caused fisherman to invest more money in fishing capital than would otherwise have been necessary, resulting in an excessively large groundfish fishing fleet. This brief history should highlight the need for a reduction in fishing capacity in the New England groundfish fishery.

11.1.1 Multi-National management

Fishery regulation first became an issue of regional concern shortly after the 1905 introduction of the otter trawl in American waters (Jensen 1972). Before this time, the groundfish fishery was prosecuted exclusively by hook and line, which limited total fishing effort to the sheer number of fish a fisherman could haul. Hooks targeted only large, mature fish and any smaller fish hooked were immediately returned to sea. The introduction of the otter trawl changed the very nature of this fishery by introducing a technology that had the potential to outpace nature's resilience.

The North American Council on Fisheries Investigations (NACFI), in existence from 1920 to 1938, was the first international organization charged with management of northwest Atlantic fisheries. Their only significant contribution to fisheries management was the creation of the Northwest Atlantic statistical areas. These areas were created on the basis of natural ecological divisions and what was known of the fish populations in each area at the time, and are still in use today (Jensen 1972, Matykiewicz 1982).

In 1949 the International Commission for the Northwest Atlantic Fisheries (ICNAF) succeeded the NACFI. This organization was formed for the "investigation, protection and conservation of the fisheries of the Northwest Atlantic Ocean, in order to make possible the maintenance of a maximum sustained catch from those fisheries." ICNAF covered the entire northwest Atlantic from the west coast of Greenland, Labrador, Newfoundland, Nova Scotia, and New England as far south as Rhode Island. Initially consisted of 14 nations: Canada, Denmark, France, West Germany, Iceland, Italy, Norway, Poland, Portugal, Romania, Spain, U.S.S.R., United Kingdom, and the United States. The organization was mainly concerned with minimizing the destruction of young fish in otter trawl nets. Their experiments led U. S. fishery managers to institute a minimum mesh size of 4.5 inches in 1953. Mesh size restrictions continued as the fundamental component of fishery

management through the 1970's, but while minimum mesh sizes steadily increased, the abundance of cod, haddock, and yellowtail flounder steadily declined.

As a result of these declines, between 1945 and 1970 the federal government provided increasing levels of assistance to the fishing industry. The New England region in particular did not have a history of producing a good return on fisheries investment, and long-term loans were difficult for individual fisherman to obtain. In 1956 the U.S. government began the Fishery Loan Program, which offered low-interest, federally guaranteed loans to fishermen. In 1965 the Fishing Vessel Capital Construction Fund (CCF) was instituted. The CCF allows vessel owners to put a portion of their pre-tax income into a capital construction fund, and it is still in use today. Many of the vessels still fishing in New England waters were built with money from these programs.

11.1.2 Federal management

In 1976 Congress passed the Fisheries Conservation and Management Act (FCMA), primarily to address foreign fishing in U. S. waters. The FCMA prohibited foreign fishing within the U.S. territorial sea, which was defined at that time as waters out to 12 miles from the U. S. coast. This was soon expanded to include the U. S. Exclusive Economic Zone (EEZ), which covers waters from 3 to 200 miles off the U.S. coast.

The FCMA listed 10 National Standards for fisheries management, which continue to guide policy makers in creating fishery regulations (see Appendix C). Eight regional fisheries management councils were created, each responsible for regulating the federal fisheries within their jurisdiction. They are charged with assessing available scientific data and creating fishery management plans (FMP's), which are forwarded to the NMFS Regional Administrator for authorization. The Regional Administrator has the option of authorizing the FMP as is, altering it prior to implementation, or rejecting it altogether and implementing his or her own management plan.

11.1.3 The quota management period

The New England Fisheries Management Council (NEFMC) managed the groundfish fishery between 1977 and 1982 by instituting quotas for each of the three principle groundfish species (cod, haddock and yellowtail flounder). These quotas were based on ICNAF records that soon proved to be unreliable. In 1977, the first year of regulation by the NEFMC, fishing for the three primary groundfish species was suspended within three months of the season opening when all the quotas were exceeded (Hennessey and Healey 2000). Smaller fishing vessels that typically fish only in the summers claimed that this was unfair because they had not yet had the opportunity to go fishing. Other fisherman stated that the quotas favored fisherman who traditionally fished close to their homeports. Regulations intended to apply evenly to all fisherman were shown to have powerful distributional impacts. By 1978, the species quotas were scrapped in favor of "vessel class" quotas based on the size of fishing vessels and their typical gear used. Distinctions of "vessel class" were arbitrary, and nearly every vessel appealed for it's own class due to special circumstances unique to each geographic area, gear type, fishing pattern or target species. The additional complexity of separate quotas invited noncompliance, as vessels would, for example, catch twice their allocation while claiming different gear types and access to different quotas (2000). Despite these problems, the quotas were in effect until 1982.

During the early 1980's fisherman utilized the Capital Construction Fund extensively to build larger, more efficient vessels. In fact, NMFS estimates that between 1977 and 1992, the CCF and other government-sponsored programs helped increase the number of fishing vessels in New England by 80%, while the number of fisherman increased 140% (NMFS 1995). Furthermore, Hennessey and Healey observe that "the Tax Reform Act of 1980 had a dramatic effect on fleet capitalization as wealthy fishers and investors from outside the industry began to buy boats for tax relief" (2000). The Tax Reform Act was amended in 1986, but during the 1980's its influence in building the size of the fishing fleet "appears to have been considerable" (2000).

11.1.4 The indirect management period

Between 1982 and 1992, quota management was suspended and a series of measures focusing on mesh size restriction were implemented. Net mesh size varied for different geographic areas, allowing fisherman to jump from one regulatory area to another on the same fishing trip and making enforcement of mesh sized virtually impossible. Minimum fish (species) sizes were instituted to try and negate the incentive for illegal fishing, the rationale being that fishing with small mesh nets would not be necessary if smaller fish were not legal to land. These minimum fish sizes, however, were also area-specific, and with no means of proving where species were caught they too were largely unenforceable.

In 1986 the NEFMC implemented the Comprehensive Groundfish FMP, which continues to serve as the Groundfish FMP to this day. The only significant change that this signaled was the use of biological targets for the removal of juvenile fish. The Groundfish FMP also expanded the definition of groundfish to include more species. There were still no direct controls on fishing effort included in this plan. The groundfish fishery remained open to access, and vessel permitting was unrestricted (Wang 362).

In November of 1986, the World Court at The Hague established a boundary between the U.S. and Canadian Exclusive Economic Zones. The practical impact of this ruling was that the fishing effort that had previously been dispersed across both U.S. and Canadian waters was then condensed to only U.S. waters (Wang 362). Meanwhile, fish stocks continued to show signs of decline. By June of 1988, the Groundfish Monitoring Committee of the NEFMC reported that stock levels of cod, haddock and yellowtail flounder were at historic lows (Hennessey and Healey 2000).

As the health of the cod, haddock and yellowtail stocks continued to show no improvement, the need for regulation increased. In 1989, the NEFMC promulgated 602 individual management guidelines requiring specified overfishing definitions for every fish stock. The guidelines directed the Council to design rebuilding programs for all stocks classified overfished by these guidelines. The Council adopted Amendment 4 to the Groundfish FMP in 1991 as a direct response to the "602 guidelines." Under Amendment 4, cod, haddock and yellowtail flounder were deemed overfished, but the amendment lacked any mention of a stock rebuilding they required (Wang 1997).

That same year, the Conservation Law Foundation (CLF), a Boston-based nonprofit environmental advocacy group, brought suit against NMFS (and others) for implementing

an amendment that did not prevent the overfishing of cod, haddock and yellowtail flounder stocks in accordance with the 602 published requirements. A consent decree was reached between the CLF and NMFS in late 1993 under which the NMFS agreed to reduce groundfish fishing mortality by 50% over a 5 year period (Hennessey and Healey 2000).

11.1.5 The limited access period

Amendment 5, passed in 1994, was intended to eliminate the overfished condition of cod, haddock and yellowtail flounder stocks. Amendment 5 changed the basis of groundfish management once again, shifting from a focus on mesh size to an emphasis on fishing effort controls, the use of wide area closures for spawning groundfish, and a complicated series of landing quotas. Amendment 5 included the creation of “limited access” groundfish permits, which were issued to all vessels with a documented history of groundfish landings in New England. A moratorium on new groundfish permits was instituted, and effort quotas in the form of allocated vessel Days-at-Sea (DAS) were created. Once again, mesh size requirements for vessels targeting groundfish were raised. Additional measures included mandatory reporting of landings by vessels and fish dealers (1997). Groundfish permits were permanently and irrevocably attached to individual vessels, and a moratorium on vessel upgrades, including length and horsepower increases, was instituted. Vessels could be replaced, but they could only retain the groundfish permit if the new vessel was similar to or smaller than the vessel it was replacing.

In December 1994, an emergency action by the Council in response to the Conservation Law Foundation lawsuit permanently closed three previously seasonal closure areas on George’s Bank to all fishing vessels capable of catching groundfish. These areas accounted for as much as 50% of the historical fishing grounds. Their closure had the unintended affect of focusing an equal amount of fishing effort on roughly half the geographic area. Pressures on the fish stocks found outside the closed areas increased dramatically. The reduction of available fishing area also provided an incentive for fisherman to fish areas that were previously deemed unfishable, usually due to their rocky or “hard” bottom. New technologies such as large “rockhopper” tires on fishing nets were employed to gain access to these rocky areas.

In August of 1994 NMFS scientists issued a Special Advisory, warning that the yellowtail flounder stock had collapsed and the cod stock was in imminent danger of collapsing. They declared that Amendment 5’s measures “were clearly inadequate to prevent the collapse of cod or allow the rebuilding of yellowtail flounder” (NMFS 1994). The scientists recommended that fishing mortality for the two species should “approach zero” (Hennessey and Healey 2000). The report was widely ignored.

In early 1996, the NEFMC passed Amendment 7, which aimed to reduce fishing mortality to 80% of 1993 levels within two years, primarily by reducing vessel DAS allocations from their initial allocation of 144 DAS to 88 DAS in 1997. Additional seasonal closed areas were added to the coastal areas north of Gloucester. A severe decline in haddock stocks was addressed with a landing limit equal to 300 lbs of haddock per day fished, with a maximum of 3,000 lbs per trip. Enforcement of this limit, like all landing quotas, proved difficult and non-compliance was heavily reported by fisherman and law enforcement alike.

Later that year, the Department of Commerce allocated \$25 million in disaster assistance to purchase and retire fishing vessels. The program received over 160 applications with a total estimated value of over \$58 million. About 80 vessels were purchased and retired, and approximately 22% of the active fishing fleet was removed (Jagodzinski 1997). Use of DAS, however, did not change appreciably as a result of this disaster assistance.

In 1996 the U.S. Congress re-authorized the FCMA and implemented the Sustainable Fisheries Act (SFA). This Act required a 10-year rebuilding schedule be enacted for all fish stocks deemed overfished. By 1998, the new requirements of the SFA had not been incorporated into the groundfish management plan. Gulf of Main cod stocks were in severe decline, and several emergency actions were implemented by the NEFMC. A series of seasonal closures were implemented off of the New Hampshire and Maine coasts to protect juvenile cod stocks. These closures forced fisherman to either venture farther offshore than they ever had before or relocate to areas that they had not previously fished. The impact of this increased fishing effort in some localities while providing relief for the closed areas. Fisherman were forced to spend more money in either fuel or relocation costs in order to fish, and were therefore under more pressure to increase their catches to compensate (Dobbs 2000).

Stocks of Gulf of Maine cod continued to decline throughout the late 1990's and complicated landing limits were implemented to regulate cod caught in the Gulf of Maine. At times this limit was as low as 40 lbs of cod per day with a 400 lbs per-trip maximum. A telephone call-in system was set up just for cod fisherman, allowing them to be charged for Days-at-Sea while not actually fishing just so that they could retain their limit of cod. These regulations proved extraordinarily complicated and nearly impossible to enforce. Furthermore, fisherman reported large amounts of cod being caught and discarded at sea due to the limits, but scientists maintained that the status of this fish stock was getting worse and not better (2000).

11.1.6 The interim-action period

Suit was brought against the National Marine Fisheries Service in late 1999, claiming that the Service had failed to adequately address overfishing on several stocks including Gulf of Maine and Georges Bank cod. The judge ruled in favor of the plaintiffs and implemented, as an interim action, a new suite of groundfish regulations. On August 1, 2002, several changes designed to meet conservation objectives were implemented. The most sweeping, and most relevant for our purposes, was the re-calibration of DAS allocations. A "used DAS baseline" was established, effectively eliminating approximately 60% of the unutilized allocated DAS and limiting vessels to a number of DAS equivalent to their highest DAS used in any year between 1996 and 2001. This baseline was further reduced by 20%, leaving most active groundfish vessels with less than 60 DAS allocated...and most inactive groundfish vessels effectively out of the fishery. Additional seasonal and area closures, trip limits, and size limits were implemented, as was a change in the way DAS were counted (on a seasonal/area basis). The interim action regulations were in effect until the implementation of Amendment 13 on May 1, 2004.

11.1.7 The post-Amendment 13 period

Amendment 13 re-evaluated the DAS baseline and created four new categories of DAS ('A', 'B-regular', 'B-reserve', and 'C'). Category A and B DAS were reduced by 40% from the Amendment 9 DAS allocations, as modified by the used DAS baseline, while Category C DAS were allocated based on a vessel's original Amendment 9 allocation. Consequently, much of the latent (unused) effort that existed under Amendment 9 was converted into Category C DAS under Amendment 13.

New stock rebuilding targets were adopted as a part of Amendment 13, as well. A re-assessment of the biological "potential" of the groundfish fishery led the Northeast Fishery Science Center to increase their target stock abundance levels for nearly all of the groundfish species. This had the effect of requiring lower initial (to Amendment 13) fishing mortality rates, and was a major impetus behind several of the more restrictive management measures required under Amendment 13 (including the cuts in allocated DAS).

All in all, allocated DAS were reduced from roughly 150K to roughly 50K, and used DAS were reduced from 63K in 2001 to 34K in 2004. The number of active groundfish vessels also decline, from approximately 1,400 vessels in 2001 to just over 1000 in 2004. However, the average number of days each of these vessels could fish for groundfish declined substantially, and as a consequence revenues from groundfish have declined.

Framework Action's 40A, 40B and 41, passed by the NEFMC sequentially from 2004 to 2005, were designed to increase access for groundfish vessels to what were determined to be 'healthy' groundfish stocks such as Georges Bank yellowtail flounder and haddock. By allowing the use of Category B DAS, vessels could increase their effort on these stocks while, by strictly enforced bycatch caps, other more vulnerable stocks were not adversely effected. Subsequent scientific assessments revealed that yellowtail flounder, among others, was not as healthy as previously thought, and, as of early 2006, most B-DAS programs have been suspended.

In the summer of 2005, an interim stock assessment was conducted on the groundfish stocks, revealing that several stocks were not meeting the Amendment 13 targets. Further reductions in fishing effort were required, and in the early spring of 2006 the NEFMC adopted a new framework action, Framework 42, in an attempt to meet the biological targets. Framework 42 is scheduled to reduce DAS allocations and use through a combination of blanket DAS reductions (8.5%) and adjustment to DAS counting rules (counting two DAS for every one day used in the inshore Gulf of Maine), in addition to changes in trip limits and other measures. This action is expected to further erode the per-vessel profits from the groundfish fishery, and will likely leave a good portion of the groundfish fishing fleet operating at or below their profitability threshold.

12.0 Fishery buyouts in New England

To address a growing groundfish fishery and decreasing groundfish stocks in New England, the federal government implemented two groundfish buybacks in New England. These buybacks were designed to achieve multiple goals such as reducing the capacity to

harvest fish, provide economic assistance to fishermen, and improving the conservation of fish (Hill 2001, 2). The two buybacks that occurred between 1995 and 2002 had different objectives, designs, and outcomes.

The first buyback took place in two phases between June 1995 and May 1998 under the authority of the Emergency Supplemental Appropriations Act (ESA) of 1994 and the Interjurisdictional Fisheries Act. The ESA allocated money to the Northeast Fisheries Assistance Program which provided money for fishing family assistance centers, loan guarantees to improve fishing infrastructure, research grants to develop opportunities for fishermen in aquaculture, underutilized species, and other businesses, and provided 2 million dollars for a fishing Capacity Reduction Demonstration Program, commonly referred to as the pilot buyout program (Kitts et al. 1998). The pilot buyout ended in February of 1996 with the purchase and disposal of 11 vessels possessing permits in the Northeast Multispecies fishery.

An additional \$25 million dollars was provided by the Interjurisdictional Fisheries Act for the second phase of the buyout program known as the Fishing Capacity Reduction Initiative. Approximately \$23 million dollars was utilized by NOAA's Office of Sustainable Development to purchase and remove an additional 68 fishing vessels. Upon completion of the program in 1998, 79 vessels and associated permits had been purchased and removed from the fishery (Kitts et al. 1998).

The first buyback was successful in removing active effort from the groundfish fishery, however, latent effort proved to be an issue. Additional vessels subsequently re-entered the fishery, undermining the potential long term benefits of the capacity reduction effort. According to the GAO, 62 previously inactive vessels began catching groundfish after the buyback, replacing fishing capacity by as much as two-thirds of that purchased through the buyback (Hill 2001, 4). This drawback led to a second federal buyback program.

The second buyback targeted latent permits by reducing the number of groundfish limited-access permits with little or no history of groundfish landings, preventing vessels with those permits from increasing groundfish harvests in the future as these stocks rebuild. During this buyout there was no requirement to scrap vessels or surrender other federal permits. Completed in 2002, the buyout allocated and spent \$9.6 million under an emergency supplemental appropriation to the Military Construction Appropriations Act (fisherresearch.org). The buyout used a reverse auction ranking bids by using a DAS weighted measure of fishing capacity. Of the 1,732 eligible permits, 502 bids totaling \$99.2 million were received, and with the \$9.6 million dollars 245 permits were retired (NOAA 2002).

Past buybacks in New England were successful in providing some fishermen with financial assistance, but did not result in better management of the New England groundfish fishery. Overcapacity continues to remain in the Northeast Multispecies fishery coupled with skepticism directed towards federal fishery buybacks.

13.0 An overview of capacity in fisheries

Capacity refers to a firm or organization's ability to generate output when utilized optimally. Capacity is a maximum likely output (as opposed to an observed or actual output) and is therefore best thought of as a theoretical concept. The U.S. automotive industry, for example, may have the ability to produce 10 million automobiles per year with all manufacturing centers operating all available shifts at full employment. Individual automakers may choose, however, to produce only a fraction of their theoretical maximum output. Capacity utilization is the ratio of observed output to a theoretical maximum production capability (capacity) output. The difference between capacity and actual production may be thought of as excess capacity in the long run (though, for reasons not discussed here, in the short run this is not always the case).

There is no consensus definition of fishing capacity in either the economic or fisheries literature. Both the Federal Reserve and the U.S. Bureau of Census use a physical definition of capacity called "full production capability," meaning the maximum level of output that a producing unit could reasonably expect given normal operating conditions. The Bureau of Census further refines this by employing a concept of "sustainable practical capacity," which is a maximum level of production that a plant could reasonably expect to attain using a realistic employee work schedule, and the machinery and equipment already in place (Bureau of the Census 1997). Another physical definition was offered by Johansen (1968): "Capacity is the maximum amount that can be produced per unit of time with existing plant and equipment, provided the availability of variable factors of production is not restricted."

Walden and Kirkely (2000) cite three economic (in contrast with physical) definitions which have been "widely used" since their development by C. J. Morrison (1985) and R. Nelson (1989). The first definition sets capacity at the tangent of the short- and long-run average cost curves. The second states "capacity is the output corresponding to the minimum point on the short-run average cost curve," which implies that capacity should be predicated upon the highest average revenue (minimum average cost). The last holds that "capacity is the output corresponding to the tangency between the long-run average cost curve and the minimum short-run average total cost curve" (this is also referred to as the long-run competitive equilibrium point) (2000).

These definitions may be useful when studying industries with extensive and readily available cost and income data, but because they focus on the cost and not production they fail to capture the true impact of capacity as it relates to the fishery. Furthermore, data necessary for calculating an economic conception of capacity, in particular those of operating costs, are not readily available and may be difficult to model or summarize. For these reasons, most fisheries economists prefer to focus on the physical aspects of capacity as best summarized by the Bureau of Census definition. This was the recommendation of the United Nations Food and Agriculture Organization in their report on fishing capacity (Kirkely and Squires 1999).

Like capacity, there is no generally accepted definition for capacity's corollary, over-capacity. The New England Fishery Management Council's Capacity Committee failed miserably when it chose a non-definition for its Final Report on Capacity in the Northeast Multispecies Fishery: "Excess capacity" means that, each year, we "take the available fish" so

quickly that society has become dissatisfied” (2000). This definition, in fact this entire line of reasoning, clouds the issue of over-capacity more than it illuminates it.

Iudicello, et al. (1999) summarize over-capacity as “an excessive level of catching power; more effort in terms of vessels, time and gear than is necessary to catch the amount of fish available.” This definition assimilates the Census Bureau’s physical definition, but uses the ambiguous word “available” which would require a normative judgment should this definition be utilized. It is also important to remember that capacity refers to a ‘best practice’ case, where the inputs (capital and human capital) are utilized at a *maximum reasonable* level. Therefore, a condition of excess capacity does not always result in resource depletion but the opposite is not likely true; in times of resource depletion over-capacity is probably present.

14.0 Fishing Capacity and the New England Groundfish Fleet

The only literature detailing capacity levels for the New England groundfish fishery is that of Walden and Kirkley (2000). They chose to focus specifically on otter trawl gear, and therefore their results do not take into account the capacity of either gillnet or hook vessels, both of which are responsible for a significant percentage of total groundfish landings. They utilized a statistical approach called Data Envelopment Analysis (DEA), which essentially traces out a non-parametric “best practice frontier,” or maximum daily output, for all vessels analyzed. Their study included all vessels that landed any one of 10 regulated groundfish (red, white, and silver hake were not included because they are captured using a smaller mesh size) or monkfish, which is often caught in conjunction with groundfish. Landing data from 1996-1998 was analyzed, and a maximum daily landing total was computed for each of 484 vessels¹. This maximum daily landing was multiplied by the Days-at-Sea (DAS) allocation for each vessel to compute a maximum per-vessel annual landing. The results indicated a maximum capacity for this fleet of slightly more than 38,000 metric tons of groundfish, and of 11,500 metric tons of monkfish. Annual landings during the 1996-1998 time period averaged 15,705 metric tons for groundfish (41% of the computed total) and 8,397 metric tons for monkfish (73.2% of computed total) capacity. They conclude “given current stock conditions, and the regulatory environment, excess capacity exists in the New England otter trawl fleet” (2000).

By utilizing 1996-1998 data, Walden and Kirkley were attempting to gauge capacity under the most current regulatory environments. Regulatory change can greatly affect a vessel’s ability to capture fish; likewise, changes in resource abundance have a pronounced affect on landings. Interestingly, the regulatory environment present during their research contained at least one significant component that may render their conclusions conservative. Between 1996-1998, haddock, a primary groundfish species, was regulated under a landing restriction that required vessels to land no more than 300 lbs of haddock per day of fishing (with a maximum trip limit of 3,000 lbs) (NEFMC 1998). This restriction was relaxed in the latter half of 1998, first to 1,000 and then 3,000 lbs of haddock per day (with a corresponding

¹ NMFS Landing Data indicates that an average of 923 vessels landed more than 300 lbs of regulated groundfish for at least one trip. In 1997, 1092 vessels utilized at least one day at sea (NEFMC 1998). Both of these figures include gillnet and hook vessels not included in Walden and Kirkley’s research.

10,000, then 30,000 lbs-per-trip limit). This means that during the timeframe investigated by Walden and Kirkley, vessels were prohibited from landing a large percentage of a species that, after the regulation was relaxed, now comprise a significant percentage of total landings. The haddock landing limit artificially suppressed the maximum daily landing calculations for the vessels analyzed. This regulatory-induced inefficiency is likely to render Walden and Kirkley’s conclusions about excess capacity conservative.

Regulatory changes since Walden and Kirkley’s analysis have reduced the amount of capacity in the groundfish fleet. In terms of access to the fishery, the Settlement Agreement in 2002 reduced the number of allocated DAS for 2002 and 2003. Amendment 13 continued these reductions, but gave back some of the latency that was eliminated under the Settlement Agreement by allocating Category “C” DAS to most vessels that had previously possessed but not necessarily actively used DAS under the Amendment 7 and Amendment 9 DAS allocation schedules. The fact that many stocks have failed to recover under even these decreases in DAS allocations indicates that overcapacity is still a severe problem.

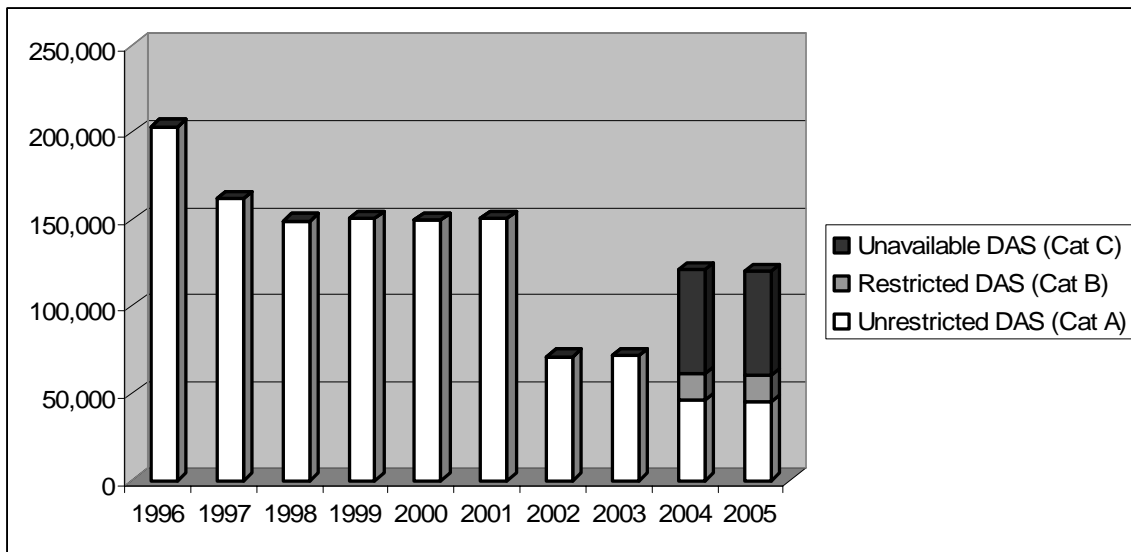


Figure 6: Days-at-Sea allocated to groundfish vessels in New England, 1996 – 2005 (data source: NMFS)

15.0 Literature Cited

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