

AMENDMENT #1 TO THE
FISHERY MANAGEMENT PLAN
FOR
ATLANTIC SEA SCALLOPS

INCORPORATING AN
ENVIRONMENTAL ASSESSMENT
AND
REGULATORY IMPACT REVIEW/
INITIAL REGULATORY FLEXIBILITY ANALYSIS

Prepared by the
New England Fishery Management Council

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SUMMARY

The New England Fishery Management Council and the Assistant Administrator for Fisheries (NOAA) propose to adopt and implement Amendment #1 to the Final Fishery Management Plan for Atlantic Sea Scallops (Placopecten magellanicus). The purpose of Amendment #1 is to establish a four ounce standard for sea scallops, which becomes the minimum that the ten smallest sea scallops in a one pound sample may weigh, to achieve a 30 maximum average meat count on an annual basis. This change in management measure will address management problems which have thwarted the achievement of the FMP objectives for stock restoration and enhancement of yield per recruit.

Despite industry compliance with maximum average meat count and minimum shell height management measures, the exceptionally abundant 1979 year class of sea scallops on Georges Bank was reduced in number, during 1983, much more rapidly than anticipated, presumably due to mixing of these small scallops with larger scallops in the commercial landings. As a consequence, most of the 1979 year class in the South Channel area was caught before it could contribute to stock restoration and enhancement of yield per recruit to the extent anticipated. The concern is that the maximum average meat count and minimum shell height standards will not prevent similar losses in the future in any resource area. In particular, improved recruitment beginning in late 1985 and during 1986 is expected throughout the Northern Edge and Peak areas of the Georges Bank as well as the New York Bight resource (Report on the Status of the Sea Scallop Fishery, January 1985, NERO).

Amendment #1 proposes the adoption of a four ounce standard for the ten smallest sea scallops in a one pound sample, applicable to all sea scallops. At an extreme case of a single recruiting year class, such a measure may temporarily result in meat counts as high as 40 (i.e., all sea scallops the same size on a given trip). However, the long-term analysis indicates that a 40 meat count minimum per trip will result in approximately a 30 meat count annual average, the optimum level providing significant enhancement of yield per recruit and substantial contributions towards stock restoration. Additionally, the management program specifies that enforcement of measures will be accomplished through a prohibition against the possession of non-conforming sea scallops at all times and places in the United States.

The analysis of impacts of the proposed measure indicates that vessels that shuck scallops at sea will not be greatly impacted. In consideration of the growth rate of sea scallops, potential impacts of implementing a four ounce standard, which implies up to a 30% tolerance (i.e., nine sea scallops smaller than the 40 meat count size allowed in any one pound sample, averaging 30 meat count), will likely be mitigated at the end of one fishing year as foregone catch of small scallops early in the year grow and recruit during the first quarter of the second fishing year (Table 4). The elimination of the shell height standard may impose potentially greater impacts on any existing shellstockers because they will have to fish conservatively to avoid violating the standard after the trip is shucked out, but landings should be made up at the beginning of the second year for the same reason. The overall impacts on shellstockers, however, are expected to be minimal because none are operating at the present time. Long-term benefits to all harvesters associated with achievement of FMP objectives may be expected to commence within the third year of implementation.

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I. INTRODUCTION

The New England Fishery Management Council and the Assistant Administrator for Fisheries (NOAA) propose to amend the Final Fishery Management Plan for Atlantic Sea Scallops (Plan). The objectives of the Plan are 1) restoration of adult stock abundance and age distribution, 2) enhancement of yield per recruit for each stock, 3) evaluation of plan provisions on research, development, and enforcement costs, and 4) minimization of adverse environmental impacts on stock levels and utilization. The amendment is needed to address management problems which have thwarted the achievement of the FMP objectives for stock restoration and enhancement of the yield per recruit. The Council originally proposed a 0.4 ounce per sea scallop meat regulation, but comment received at public hearings strongly indicated that such a measure was too strict and that more of a tolerance was needed. The Council proposes to establish a four ounce standard to apply to the ten smallest sea scallops in a one pound sample, to achieve the maximum average 30 meat count. This new management measure will reduce the unanticipated mortality of small, immature scallops now being mixed with larger ones, and result in an average meat count very near the optimum standard.

II. PURPOSE OF AND NEED FOR ACTION

The New England Fishery Management Council has reviewed the status of the Atlantic sea scallop fishery resource and the condition of the industry which uses this resource. The Council has determined that sufficient management problems exist to warrant an amendment of the Atlantic Sea Scallop FMP. The problems can be summarized as follows.

1. The exceptionally abundant 1979 year class localized primarily in the South Channel region of Georges Bank has been reduced (during 1983) in number more rapidly than anticipated, presumably due to "mixing" of these scallops in the commercial landings [Woods Hole Lab. Ref. Doc. No. 83-37].
2. To the extent that the maximum average meat count standard is unable to effectively minimize the harvest of small, immature scallops, benefits from management will be dissipated [Woods Hole Lab. Ref. Doc. No. 83-35].
3. There has been a significant resource improvement throughout the Northern Edge and Peak and the New York Bight which could result in excellent recruitment beginning in late 1985 and during 1986. By the summer of 1985, sea scallops in this region will have grown to sizes (40-100 count) at which extensive "mixing" becomes possible. [Woods Hole Lab. Ref. Doc. Nos. 84-11 & 84-34].

The maximum average meat count/minimum shell height standard has been the primary management measure of the FMP. Its achievement of the objectives of the FMP are explained in Section 910 of the plan and summarized as follows. Average productivity per individual in the sea scallop population is shown to increase as controls on meat count and minimum weight effectively result in the industry consistently retaining scallops that are larger than that which would be retained under traditional industry practice. As a consequence of the increased age-at-entry, the distribution of year classes in the population improves, thereby contributing to stock restoration. Additionally, by

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delaying capture until an older age, scallops which are just beginning to contribute significantly to spawning remain in the population. The FMP's action to institute a 30 meat count maximum means that fewer immature scallops will be removed from the resource, particularly when recent recruitment dominates the population structure.

The more sea scallop landings that are at the 30 meat count standard or below, the greater are the benefits described above. An average meat count was implemented to allow a reasonable number of smaller scallops to be tolerated within the catch so as to minimize disruption of industry performance. Experience from 1983, however, indicates that, as a consequence of extensive mixing, most of the 1979 year class in the South Channel was caught before it generated the expected benefits, despite overall adherence to the maximum average meat count standard. The concern is that the management measure, as specified, will not prevent similar losses in the future in any resource areas. The most straightforward solution is to restrict catches of small, immature scallops with a minimum trip standard that will result in the 30 meat count average annually, and provide guidance for shell heights for the various areas and seasons.

III. DESCRIPTION OF ALTERNATIVES AND THEIR IMPACTS

NO ACTION ALTERNATIVE

The no action alternative represents a continuation of the current management program which, as implemented, is not achieving the objectives of the FMP. The Council views the no action alternative as unacceptable to its responsibilities for effective management of the sea scallop fishery resource.

PREFERRED ALTERNATIVE

To address the management problems that have been identified by the Council and described in the previous section of this document, the Council sought a management measure which would result in a limit on the size of scallops on a trip basis. Such a measure could restrict the size of each sea scallop or determine the weight of a number of small scallops on each trip (the greater the number of scallops measured, the greater the tolerance allowed). Alternative minimum meat sizes were examined (Appendix A) with an eye towards achieving an optimum age-at-entry relative to yield-per-recruit, spawning potential, stock restoration, and accommodating industry practices, i.e., resulting in a 30 meat count average on an annual basis.

Table 1 shows the expected range in average meat counts in the catch for a series of constant fishing mortality rates and minimum sizes for Georges Bank sea scallops. The average meat count actually obtained will also depend upon whether recruitment levels have been constant (lowest value) or whether the fishable population is only a single recruiting year class (highest value). For instance, the annual average meat count expected with a minimum size equivalent to a 40 meat count (hereafter referred to as a 40 count equivalent or 40 c.e. minimum size) rises from 17.2 to 24.3 meats per pound as fishing mortality increases, given constant and average recruitment. This assumes that each scallop is 40 c.e. minimum size, or 0.4 ounces. However, if only a single recruiting year class (the most recent) comprises the fishable population, the annual average meat count is expected to be 28.5 meats per pound for any level of fishing mortality. It has been estimated that the

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overall meat count for scallops landed in New Bedford during 1984 was 29 meats per pound (Report on the Status of the Sea Scallop Fishery, January 1985). The values shown in Table 1 are derived from Figures 5-7 found in Appendix A.

The expected range in average annual meat counts, similar to Table 1, for Mid-Atlantic sea scallops is found in Table 2. Tables 1 and 2 indicate that for both major resource areas a 40 c.e. minimum size approaches a 30 meat count average as an upper limit, depending on the strength of the recruiting year class relative to the size of the existing fishable population. A 40 c.e. minimum size in the inshore Gulf of Maine results in an average annual meat count similar to that for Georges Bank, whereas in the offshore Gulf of Maine the average may reach slightly higher than 30 (see Appendix A). Growth curves for each of these resource areas (Figures 1-4 in Appendix A) also show that a 40 c.e. minimum size allows every scallop to participate in the first major spawning.

A 3-1/2 inch minimum shell height also results in the catch of small, immature scallops, similar to the 30 meat count average, but to a greater degree because of the range of meat counts expected in any given sized shell. Although a constant minimum shell height was previously selected to correspond with the maximum average meat count, variations in individual growth by area and season can lead to shellstock landings at individual sizes smaller than those consistent with the currently proposed 40 c.e. minimum size. Therefore, it is prudent to suggest various shell heights which should not result in the landing of any sea scallops smaller than the proposed minimum size, regardless of area, season, etc., and these are presented in Table 3. These suggested shell heights can only be used for guidance, and all sea scallops, whether landed shucked or as shellstock, must adhere to the four ounce standard because of the commonality of resource use by both groups.

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GEORGES BANK SEA SCALLOPS

EXPECTED AVERAGE MEAT COUNTS RESULTING FROM A RANGE OF MINIMUM SIZES AND FISHING MORTALITY RATES

Min.Size (mc.)	Fishing Mortality	Average Meat Count
30	0.75	15.3 - 22.8
30	1.25	18.4 - 22.8
30	1.75	20.2 - 22.8
35	0.75	16.3 - 25.7
35	1.25	20.1 - 25.7
35	1.75	22.3 - 25.7
40	0.75	17.2 - 28.5
40	1.25	21.6 - 28.5
40	1.75	24.3 - 28.5

Table 1. The expected range in average meat counts in the catch for a series of constant fishing mortality rates and minimum sizes for Georges Bank sea scallops. The average meat count actually obtained will also depend upon whether recruitment levels have been constant (lowest value) or whether the fishable population is only a single recruiting year class (highest value). A fishing mortality rate of $F=0.75$ approximates the long-term average for Georges Bank as a whole. Individual scallop beds, however, may be subject to much higher levels of fishing mortality, which may reach $F=1.75$.

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MID-ATLANTIC SEA SCALLOPS

EXPECTED AVERAGE MEAT COUNTS
RESULTING FROM A RANGE OF MINIMUM SIZES
AND FISHING MORTALITY RATES

Min.Size (mc.)	Fishing Mortality	Average Meat Count
30	0.75	16.1 - 23.4
30	1.25	19.2 - 23.4
30	1.75	21.0 - 23.4
35	0.75	17.9 - 26.5
35	1.25	21.1 - 26.5
35	1.75	23.3 - 26.5
40	0.75	18.2 - 29.4
40	1.25	22.7 - 29.4
40	1.75	25.5 - 29.4

Table 2. The expected range in average meat counts in the catch for a series of constant fishing mortality rates and minimum sizes for Mid-Atlantic sea scallops. Explanation same as for Table 1.

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Table 3: Estimated sea scallop shell heights required to satisfy a 40 meat count equivalent minimum size with tolerances, by season and area.

<u>AREA/SEASON</u>	<u>SHELL HEIGHT</u>	
	<u>(mm)</u>	<u>inches</u>
<u>Georges Bank</u>		
Annual Average	(93)	3.7
APR - SEP	(92)	3.6
OCT (<u>Spawning</u>)	(98)	3.9
NOV - MAR	(96)	3.8
<u>Mid-Atlantic</u>		
Annual Average	(93)	3.7
APR - SEP	(92)	3.6
OCT (<u>Spawning</u>)	(99)	3.9
NOV - MAR	(97)	3.8
<u>Gulf of Maine - Inshore (Penobscot Bay)</u>		
Annual Average	(101)	4.0
APR - SEP	(99)	3.9
OCT (<u>Spawning</u>)	(106)	4.2
NOV - MAR	(104)	4.1
<u>Gulf of Maine - Offshore (Jonesport)</u>		
Annual Average	(107)	4.2
APR - SEP	(105)	4.1
OCT (<u>Spawning</u>)	(113)	4.5
NOV - MAR	(111)	4.4

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SPECIFICATION OF THE PREFERRED ALTERNATIVE - PROPOSED ACTION

The analysis presented in Tables 1 & 2 indicates that minimum meat counts less than the 40 meat count result in average annual meat counts substantially below the optimum of 30, and may impose undue hardship on the industry. Additionally, a measure which focuses on an individual scallop may be untenable (see Public Hearing comments, page 29); thus, a four ounce standard is required for the ten smallest sea scallops in a one pound sample to allow for more tolerance.

The proposed action is to amend the fishery management program for Atlantic Sea Scallops to:

1. Require a four ounce standard (40 meat count size) for all scallop landings, for the following reasons:
 - a. A four ounce trip standard (40 meat count size) results in approximately a 30 meat count annual average, the optimum level for yield-per-recruit considerations, even given the highest levels of fishing mortality and recruiting year class strength, in all resource areas (Tables 1 & 2 and Appendix A).
 - b. Most sea scallops which have reached a 40 meat count size (of approximately 4 years of age) have also spawned once. Therefore, the four ounce standard is judged by the Council to be the most compatible with a 30 meat count maximum average because of the reduction in recruitment overfishing.
2. Although the average meat count could previously be adjusted within a 25-40 range (see Appendix A of the FMP), the Council now proposes that the four ounce standard will not be subject to regulatory change. Therefore, the fact-finding process which resulted in the temporary adjustment of standards will be abandoned; annual review of the resource status by the Regional Director and, of course, the amendment process will remain as the basis for change in the program. The rationale for a constant standard is that allowing the catch of sea scallops smaller than a 40 c.e. minimum size would mean that sea scallops which have not even spawned once are being killed. Additionally, short-term movements away from the 30 meat count average are allowable only when they do not jeopardize future recruitment to the fishery; maintaining the four ounce standard (40 meat count size) will help promote future recruitment.
3. Finally, the existing FMP provided for enforcement of its measures only up to the point of first transaction in the United States. This provision was made in recognition that scallops which were landed in compliance with the average meat count could later be sorted and graded into sizes which would not comply with the meat count if sampled at a later point. The previous curtailment of enforcement of the (average scallop meat count) measure to the first transaction in the United States has been removed. The four ounce standard is enforced as a prohibition on possession of non-conforming scallops. This represents a recognition that the enforcement of a measure designed to conserve a valuable yet

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depleted resource must involve some flexibility. Enforcement resources of the NMFS are not without limitation. It is impossible to monitor all landings of scallops to ensure compliance with prevailing management measures. Enforcement personnel need the ability to inspect scallops while in the possession of first and second level processors. It is the expectation of the Council that the NMFS will enforce the four ounce standard against vessels and those who deal in scallops primarily in their landed form. This will prevent major disruption within the industry by allowing sorting by size for various markets. However, should it become apparent that the practice of sorting serves to undermine the effective enforcement of the four ounce standard, the Council expects that the NMFS will adjust its enforcement policy to address the problem.

IMPACTS OF ALTERNATIVES

The benefits of controlling age at first capture are well described in the FMP (Part 8); the purpose of this Amendment is to achieve those benefits at the minimum cost. Standards more stringent than the four ounce standard which effectively implements the 40 c.e. minimum size (see Tables 1 & 2) are more costly than necessary to achieve the desired benefits (30 meat count annual average) and are not analyzed. The regulatory impacts (including those on small businesses) described in Section V.C of the Final EIS were based entirely on the expected changes in landings due to changes in meat count. Similarly, the inclusion of the four ounce standard is expected to change landings but, as described above, only shifting them to the beginning of the second fishing year (third quarter of 1986) for all harvestors, processors, and consumers. Long-term benefits associated with increased landings and/or increased abundance will commence during the third fishing year (early 1988). The following biological analysis is by quarter, allowing important seasonal, recruitment, and growth factors to be considered. The economic analysis is by year, because only annual price models were available.

EXPECTED IMPACTS ON SEA SCALLOP LANDINGS

The biological analysis of the expected impacts associated with imposing a minimum size in the US sea scallop fishery examined the perturbations such a change would have on an equilibrium population. Placing the analysis within an equilibrium framework has the advantage that results are independent of the past history/future levels of recruitment. Therefore, results are directly applicable in the context of yield per recruit (see Appendix A).

To determine a baseline against which the proposed action could be evaluated, an empirical model of the current sea scallop fishery was used to generate simulated scallop landings and was structured on a quarterly basis to capture the seasonality of the fishery (66% of scallop landings over the period 1978-1982 occurred in the second and third quarters), as well as recruitment and growth of scallop year classes. It was assumed that significant recruitment begins to occur in the fourth quarter as scallops begin the fourth year of life (a birthdate of October 1 was assumed). This corresponds to a lower limit of 70 mm, shell height, in the culling range as currently practiced by vessels shucking at sea in the Georges Bank resource area. Recruitment was assumed to be complete with attainment of a shell

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height of 90 mm, corresponding to the average shell height in the fourth quarter as scallops reach age 4. The assumed current culling range implies that a few shucked scallops may attain meat counts of about 85 per pound, and that shucked meats of at least 45-50 count currently represent fully recruited scallops. An assumed current level of fishing mortality, $F = 1.0$, was used to drive the simulation analysis. With the current depressed condition of the resource in all areas, and in particular consideration of the observed rapid depletion of the 1979 year class (Serchuk, 1984), current levels of F are reasonably estimated to be higher than the assumed long-term average (approximately $F = 0.75$).

The expected average meat count analytical results (see Tables 1 & 2 and Appendix A) indicated that a 40 c.e. minimum size is adequate to assure that the annual average meat count in the landed catch should approximate 30 meats per pound, given a wide range of fishing mortality rates and any likely recruitment scenario. Accordingly, the near-term resource impact analysis was restricted to consideration of only 40 meats per pound as the probable minimum size.

Imposition of a 40 c.e. minimum size implies that scallops would not begin to recruit until the end of the fourth year of life (i.e., an approximate 1-year delay relative to the current culling practice). Recruitment would be complete as scallops reach the third quarter of the fifth year of life when meat counts of approximately 25 per pound were achieved. This implies an approximate 30 meat count for the average size of recruiting scallops and that the average meat count in the catch should not exceed 30 regardless of the pattern seen in the size of recruiting year classes.

Table 4 indicates the results of the analysis. With an assumed current level of fishing mortality, $F = 1.0$, current fishing practices at equilibrium generate an arbitrarily assumed level of catch of 8,000 metric tons for the entire US sea scallop fishery (1984 landings were 7700 MT). Imposition of a 40 c.e. minimum size at the beginning of the third quarter in 1985 was allowed to perturb the equilibrium to analyze the effect on catch. Coincident to imposing the minimum size in quarter 3 of 1985, fishing mortality was held constant or allowed to increase to higher levels. It may be assumed, a priori, that industry response to a minimum size may be increased effort levels in an attempt to minimize short-term impacts on catches. Accordingly, simulations employing fishing mortality rates of $F = 1.25$ and $F = 1.5$ attempt to examine the possible industry response in terms of the expected effects on catch. Regardless of changes in the level of fishing mortality, it is seen that positive benefits begin to accrue in the third quarter of 1986 (i.e., one year after imposing the minimum size), and that very significant increases in yield on the order of 30-40 percent may result by the end of 1989.

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Table 4: Simulations^{1/} of total USA sea scallop catches (metric tons). Catches using current culling practices are compared with those taken after imposing a minimum size equivalent to 40 meats per pound at various levels of fishing effort.

	CURRENT CULLING PRACTICE	MINIMUM SIZE EQUIVALENT TO 40 MEATS/POUND ^{2/}		
	Current Effort (F = 1.0)	Current Effort (F = 1.0)	+25% Effort (F = 1.25)	+50% Effort (F = 1.5)
Quarter 1	1,318	1,318	1,318	1,318
Quarter 2	2,470	2,470	2,470	2,470
Quarter 3	2,678	1,912	2,310	2,680
Quarter 4	<u>1,534</u>	<u>1,043</u>	<u>1,195</u>	<u>1,315</u>
1985	8,000	6,743	7,293	7,783
		-15.7%	-8.8%	-2.7%
Quarter 1	1,318	885	983	1,051
Quarter 2	2,470	2,036	2,235	2,372
Quarter 3	2,678	2,696	2,923	3,080
Quarter 4	<u>1,534</u>	<u>1,577</u>	<u>1,673</u>	<u>1,725</u>
1986	8,000	7,194	7,814	8,228
		-10.1%	-2.3%	+2.9%
Quarter 1	1,318	1,343	1,394	1,407
Quarter 2	2,470	2,877	2,963	2,983
Quarter 3	2,678	3,466	3,545	3,570
Quarter 4	<u>1,534</u>	<u>1,912</u>	<u>1,929</u>	<u>1,918</u>
1987	8,000	9,598	9,831	9,878
		+20.0%	+22.9%	+23.5%
Quarter 1	1,318	1,591	1,578	1,540
Quarter 2	2,470	3,299	3,261	3,190
Quarter 3	2,678	3,836	3,787	3,726
Quarter 4	<u>1,534</u>	<u>2,065</u>	<u>2,023</u>	<u>1,974</u>
1988	8,000	10,791	10,649	10,430
		+34.9%	+33.1%	+30.4%
Quarter 1	1,318	1,700	1,642	1,578
Quarter 2	2,470	3,480	3,362	3,246
Quarter 3	2,678	3,991	3,867	3,767
Quarter 4	<u>1,534</u>	<u>2,128</u>	<u>2,054</u>	<u>1,989</u>
1989	8,000	11,299	10,925	10,580
		+41.2%	+36.6%	+32.3%

^{1/} All simulations assume: 1) a constant level of recruitment occurring at the beginning of the fourth quarter, and 2) that the quarterly distribution of catches exhibits the average distribution observed over the period 1978-1982.

^{2/} The minimum size is assumed to be implemented at the beginning of the third quarter of year 1.

The prospects for recruitment into the fishable population over the next three years are independent of the management action taken in this amendment because the strength of those year classes is dependent upon past conditions. Therefore, over the next three years of FMP implementation, the relative impacts of the proposed action, vis a vis the status quo, that are illustrated in Table 4 will be valid regardless of year to year variability in the strength of recruiting year classes. In years 4 and beyond, the proposed action may generate increased spawning potential which should enhance recruitment and possibly increase benefits beyond those illustrated.

It is important to understand, however, that the absolute impacts calculated for the proposed action may vary with the actual strength of recruiting year classes and the actual level of effort applied by the fishery. For example, available assessment information (Serchuk, 1984) indicates that overall recruitment in 1985 will be relatively weak except for the Northeast Edge & Peak and New York Bight areas, and as a consequence, the absolute impacts of the proposed action may be less than indicated.

EXPECTED ECONOMIC IMPACTS

The economic impact analysis shows the expected changes in exvessel revenues, consumer expenditures, total landings, and prices at the exvessel, wholesale, and retail levels (Figures 1-6), of the proposed alternative compared to no action. Expected landings are from the biological analysis in Table 4 for the proposed 40 meat count size and three potential levels of fishing effort. In figures 1-6 scenario 1 reflects the status quo, scenarios 2, 3 and 4 reflect current effort, 25 percent effort and 50 percent effort, respectively.

Applying an annual sea scallop price model (Resource Document No. 80 Sc 1.1, revised 1983; NEFMC) to these landings projections results in the economic impacts shown in the figures for 1985-89. Revenues and prices are reported in real terms for year-to-year comparison; however, percent changes discussed below are the same whether they are reported in real or nominal terms. Regardless of the level of fishing effort achieved, revenues and landings initially decline (and prices increase) relative to no action (the horizontal line), but quickly increase (decrease) to higher (lower) relative levels. The initial decrease in revenues and landings (rise in prices) is of a greater magnitude, the less that fishing effort increases. Revenues and landings turn positive (prices negative) relative to no action more quickly, also depending on the level of fishing effort. For instance, no change in fishing effort (scenario 2 in the figures) results in the greatest and longest initial reduction in revenues and landings (increase in prices). The five year average (1985-89) percent changes from the no action alternative for the 40 meat count size are as follows:

	<u>Current Effort</u> (F=1.0)	<u>+25% Effort</u> (F=1.25)	<u>+50% Effort</u> (F=1.5)
Exvessel Revenues	+11.6	+13.7	+14.7
Consumer Expenditures	+3.9	+4.5	+4.8
Total Landings	+14.0	+16.3	+17.2
Exvessel Prices	-1.6	-1.8	-1.8
Wholesale Prices	-1.3	-1.5	-1.6
Retail Prices	-0.7	-0.9	-0.9

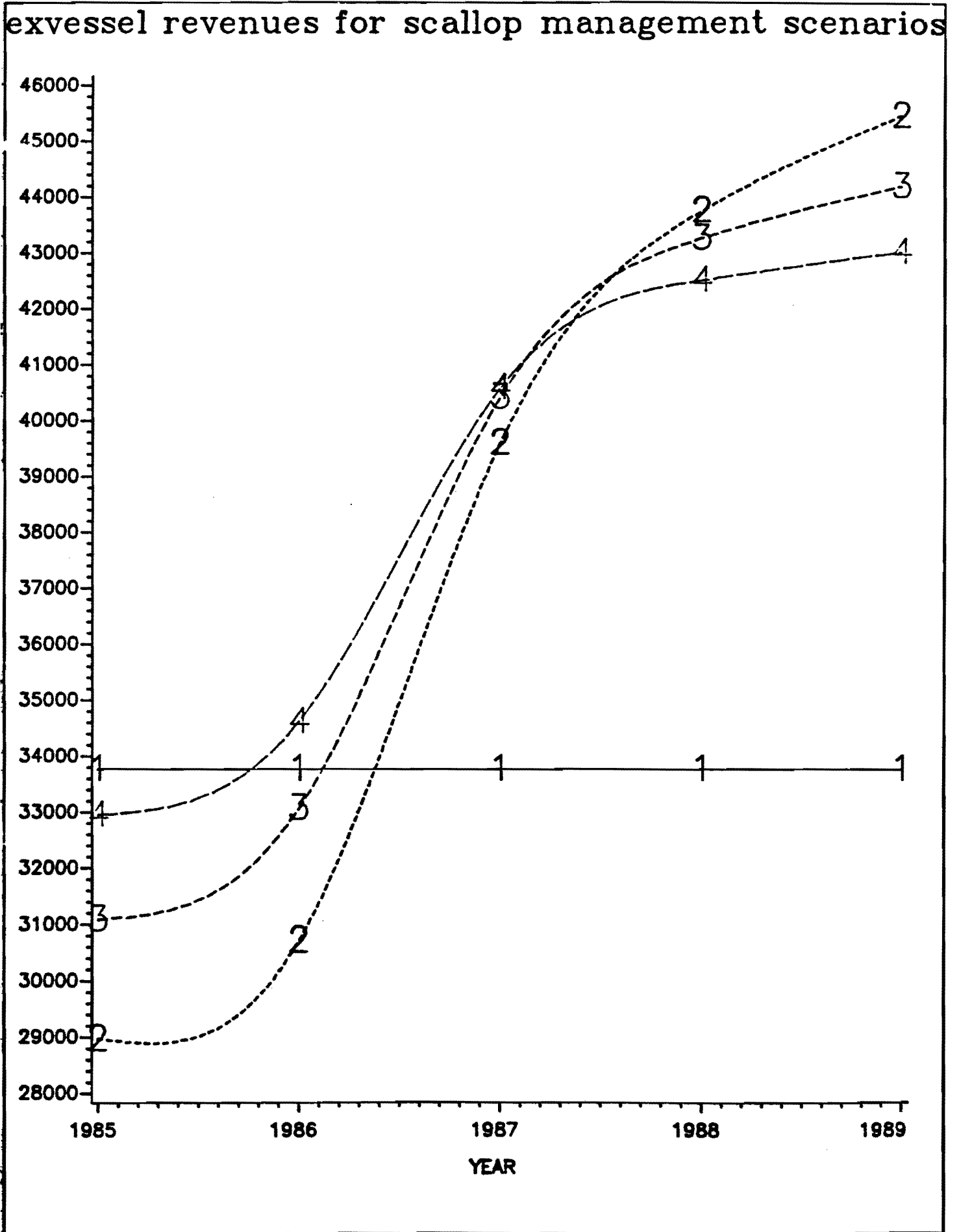


Figure 1

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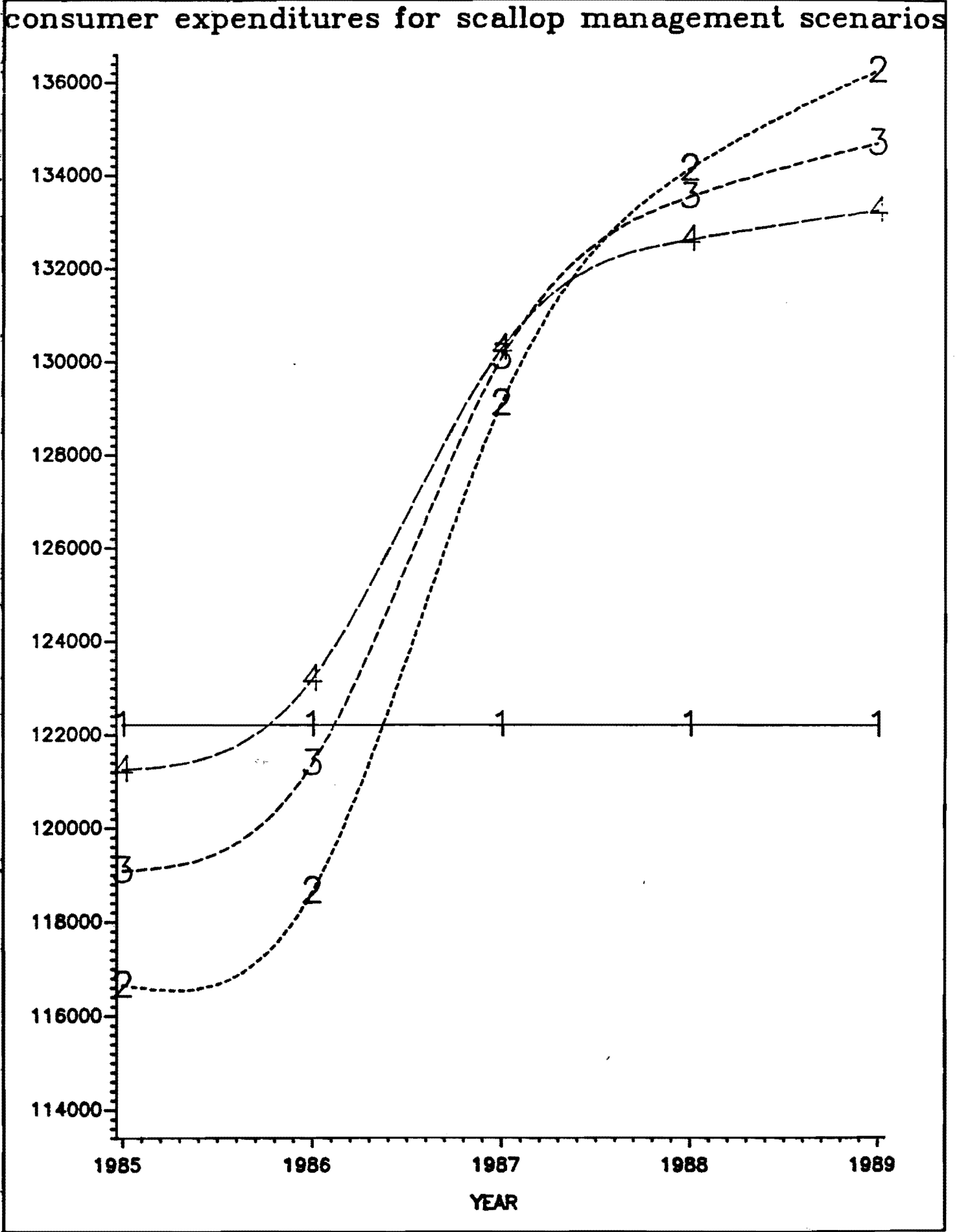


Figure 2

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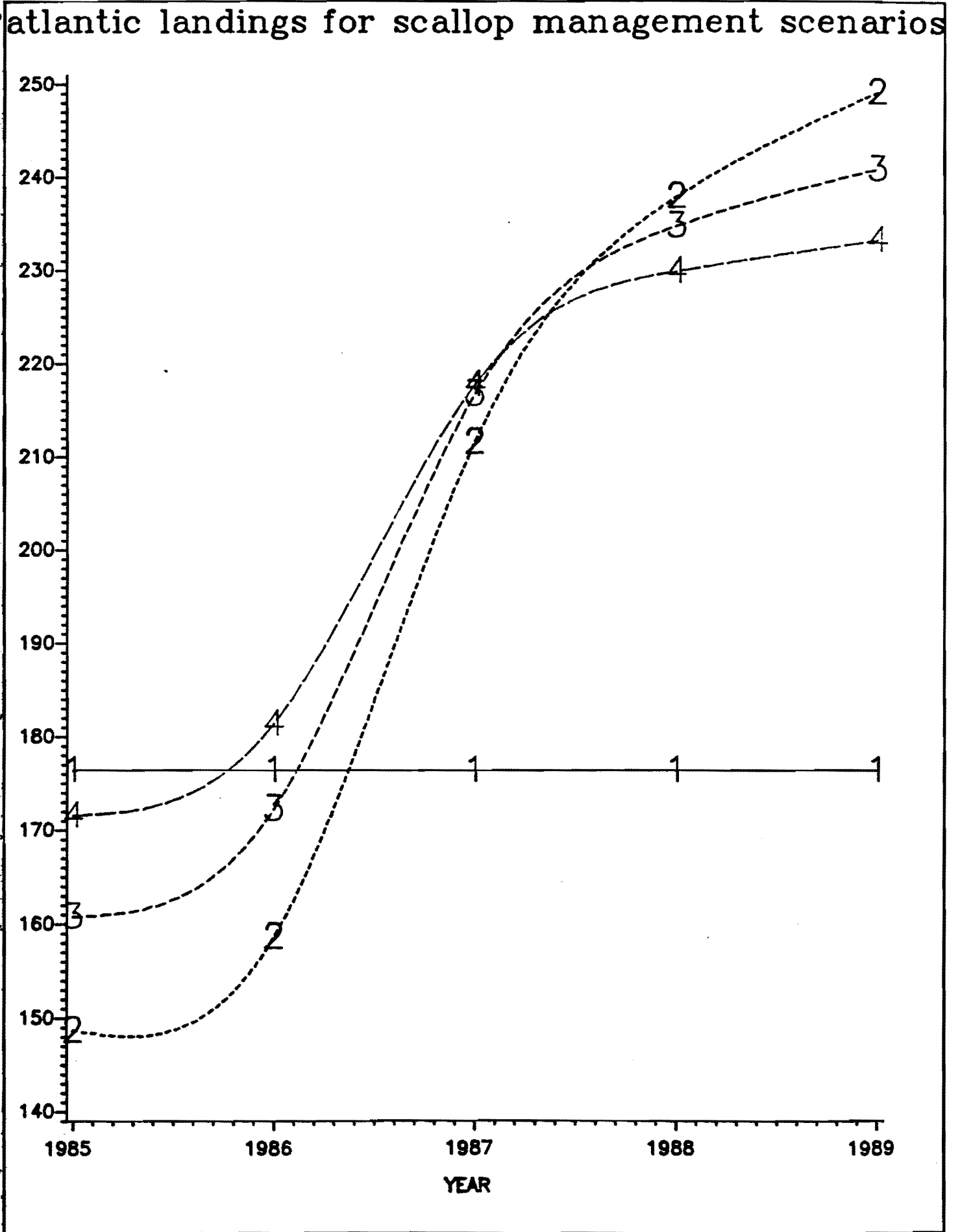


Figure 3

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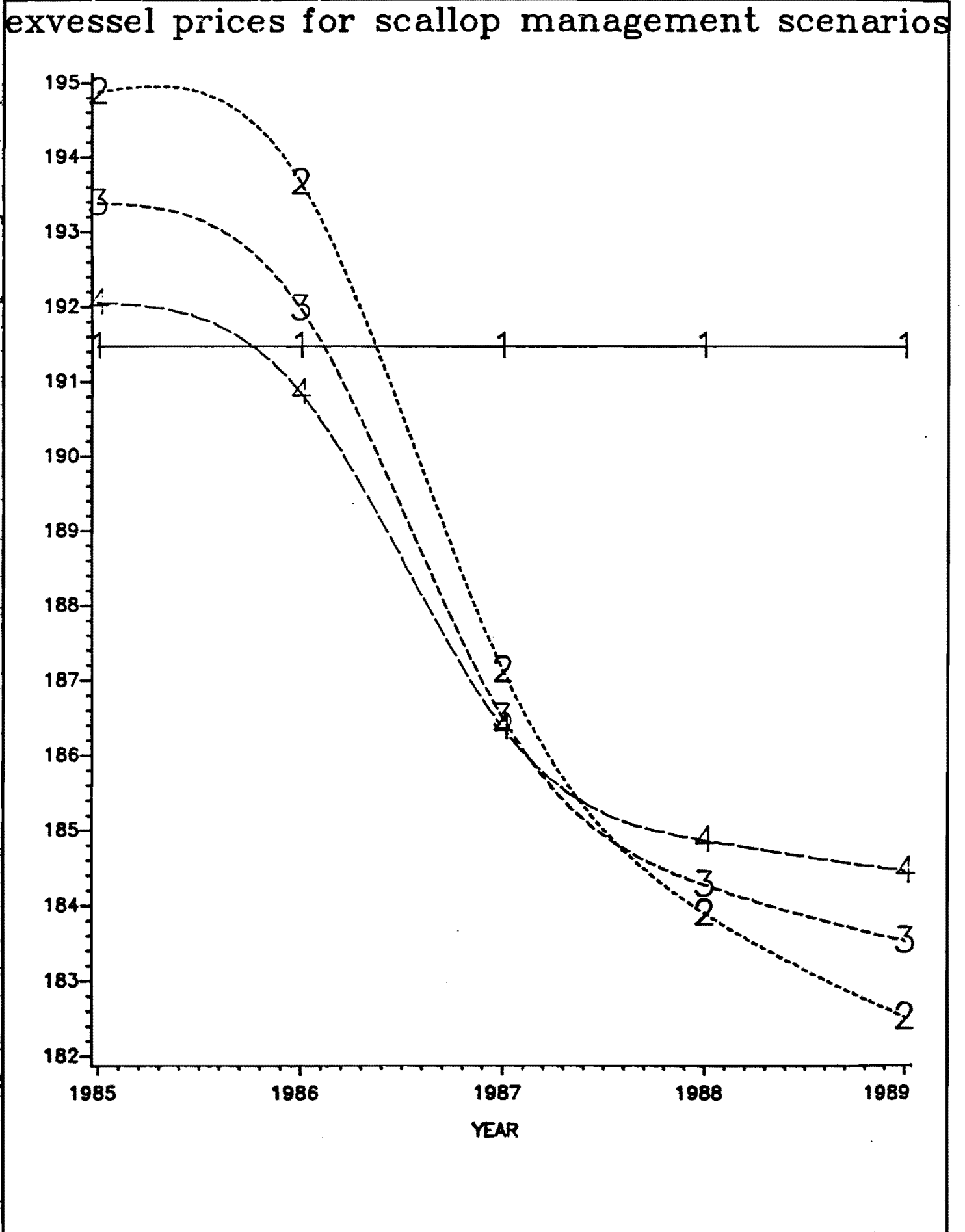


Figure 4

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wholesale prices for scallop management scenarios

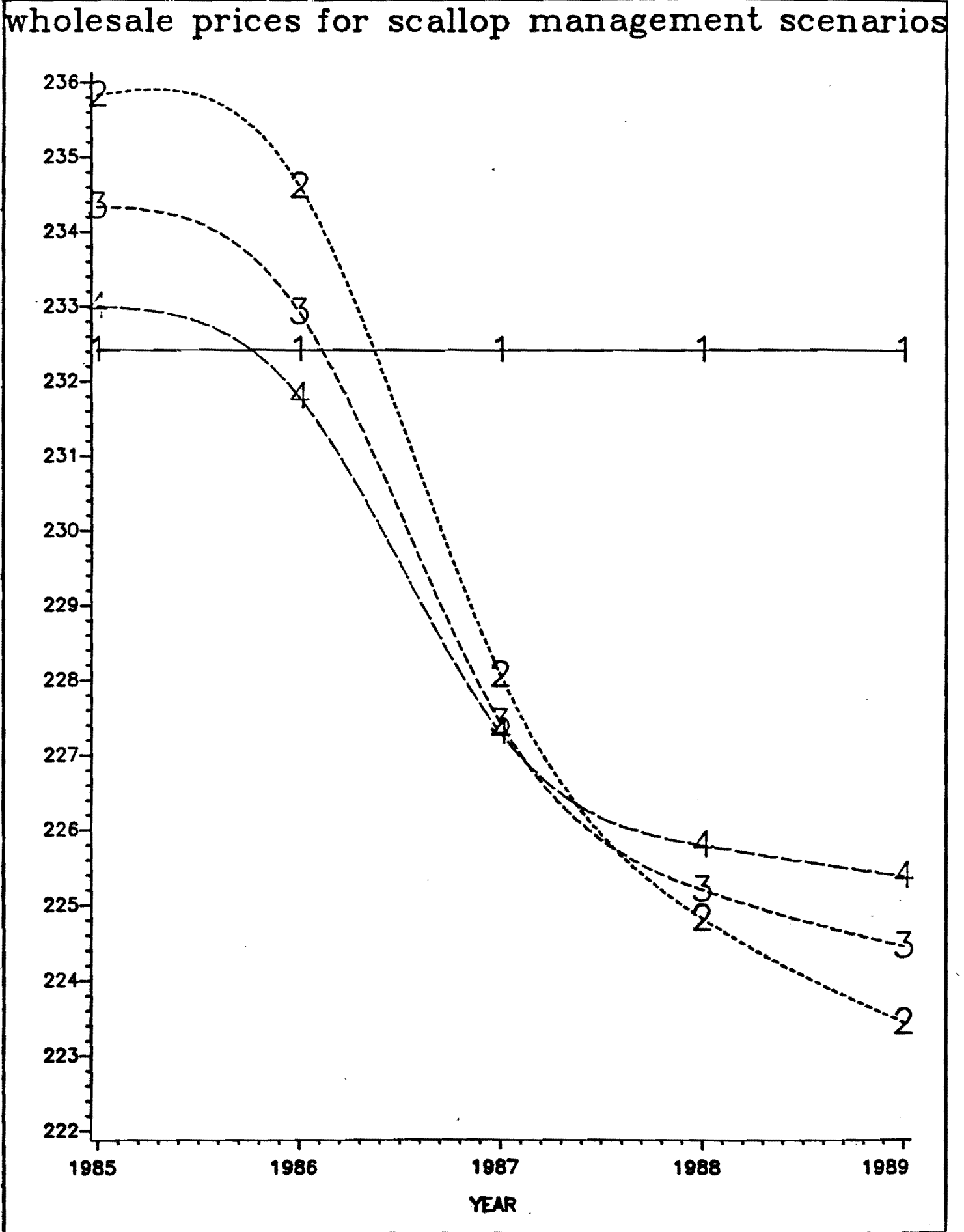


Figure 5

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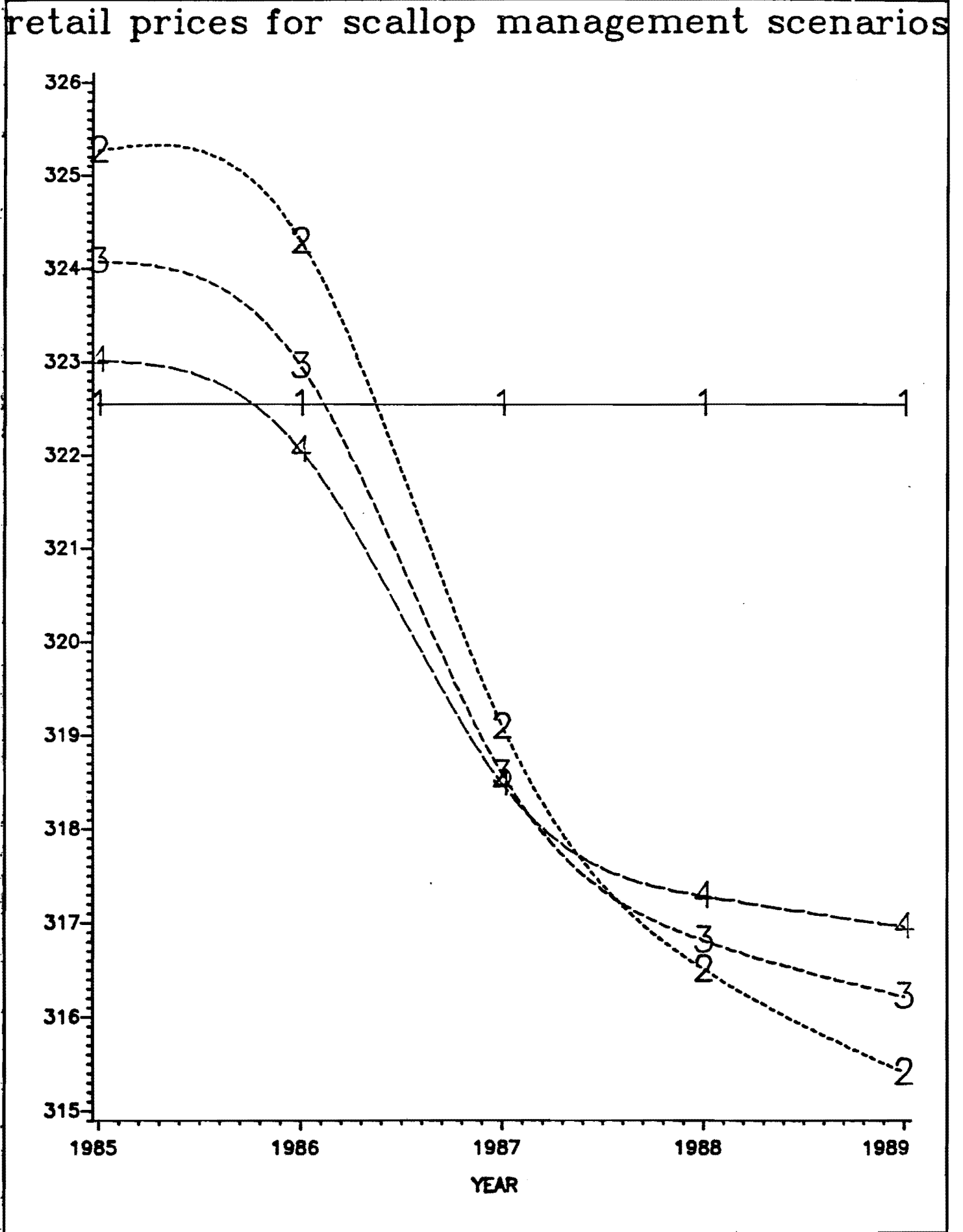


Figure 6

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Table 5: Sea Scallop Management Options

Year	Base	Current effort		+25% effort		+50% effort	
		Δ	%	Δ	%	Δ	%
EXVESSEL REVENUES							
1985	33769.1	28970.4	-14.210	31092.5	-7.9261	32954.8	-2.4114
1986	33769.1	30713.5	-9.049	33071.0	-2.0673	34619.9	2.5195
1987	33769.1	39597.3	17.259	40422.1	19.7015	40586.6	20.1886
1988	33769.1	43749.1	29.554	43263.9	28.1169	42510.5	25.8857
1989	33769.1	45465.5	34.636	44204.2	30.9013	43027.4	27.4166
CONSUMER EXPENDITURES							
1985	122207	116652	-4.5456	119096	-2.5463	121257	-0.77769
1986	122207	118658	-2.9047	121392	-0.6669	123204	0.81547
1987	122207	129111	5.6491	130103	6.4611	130302	6.62348
1988	122207	134149	9.7713	133554	9.2850	132634	8.53226
1989	122207	136264	11.5022	134708	10.2286	133265	9.04841
ATLANTIC LANDINGS							
1985	176.37	148.66	-15.711	160.78	-8.8394	171.59	-2.7102
1986	176.37	158.60	-10.075	172.27	-2.3247	181.40	2.8520
1987	176.37	211.60	19.975	216.74	22.8894	217.77	23.4734
1988	176.37	237.90	34.887	234.77	33.1122	229.94	30.3736
1989	176.37	249.10	41.237	240.85	36.5595	233.25	32.2504
EXVESSEL PRICES							
1985	191.467	194.877	1.7806	193.385	1.0018	192.055	0.3072
1986	191.467	193.654	1.1419	191.972	0.2635	190.848	-0.3232
1987	191.467	187.133	-2.2638	186.500	-2.5941	186.374	-2.6603
1988	191.467	183.897	-3.9538	184.282	-3.7527	184.876	-3.4423
1989	191.467	182.519	-4.6735	183.534	-4.1434	184.469	-3.6550
WHOLESALE PRICES							
1985	232.413	235.832	1.4712	234.336	0.8277	233.002	0.2538
1986	232.413	234.605	0.9435	232.919	0.2177	231.792	-0.2671
1987	232.413	228.065	-1.8705	227.431	-2.1434	227.304	-2.1981
1988	232.413	224.820	-3.2669	225.206	-3.1007	225.802	-2.8442
1989	232.413	223.438	-3.8615	224.456	-3.4235	225.394	-3.0200
RETAIL PRICES							
1985	322.547	325.267	0.8432	324.077	0.4744	323.016	0.1455
1986	322.547	324.291	0.5408	322.950	0.1248	322.054	-0.1531
1987	322.547	319.089	-1.0721	318.585	-1.2285	318.484	-1.2599
1988	322.547	316.508	-1.8724	316.815	-1.7772	317.289	-1.6302
1989	322.547	315.408	-2.2133	316.218	-1.9622	316.964	-1.7309

Revenues in real dollars, thousands
 Landings in 100,000 pounds
 Real prices in cents

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Table 6: SEA SCALLOP MANAGEMENT OPTIONS
DISCOUNTED AT 10%

Year	Base	Current effort		+25% effort		+50% effort	
		£	%	£	%	£	%
EXVESSEL REVENUES DISCOUNTED BY 10%							
1985	33769.1	28970.4	-14.210	31092.5	-7.9261	32954.8	-2.4114
1986	30699.2	27921.3	-9.049	30064.5	-2.0673	31472.6	2.5195
1987	27908.3	32725.0	17.259	33406.7	19.7015	33542.6	20.1886
1988	25371.2	32869.3	29.554	32504.8	28.1169	31938.7	25.8857
1989	23064.7	31053.5	34.636	30192.0	30.9013	29388.3	27.4166
CONSUMER EXPENDITURES DISCOUNTED BY 10%							
1985	122207	116652	-4.5456	119096	-2.5463	121257	-0.77769
1986	111098	107871	-2.9047	110357	-0.6669	112004	0.81547
1987	100998	106703	5.6491	107523	6.4611	107687	6.62348
1988	91816	100788	9.7713	100341	9.2850	99650	8.53226
1989	83469	93070	11.5022	92007	10.2286	91022	9.04841
ATLANTIC LANDINGS							
1985	176.37	148.66	-15.711	160.78	-8.8394	171.59	-2.7102
1986	176.37	158.60	-10.075	172.27	-2.3247	181.40	2.8520
1987	176.37	211.60	19.975	216.74	22.8894	217.77	23.4734
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1989	176.37	249.10	41.237	240.85	36.5595	233.25	32.2504
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1987	322.547	319.089	-1.0721	318.585	-1.2285	318.484	-1.2599
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1989	322.547	315.408	-2.2133	316.218	-1.9622	316.964	-1.7309

Revenues in real dollars, thousands, discounted at 10%
Landings in 100,000 pounds
Real prices in cents

The first year (1985) percent changes from the no action alternative for the 40 meat count size are as follows:

	<u>Current Effort</u> (F=1.0)	<u>+25% Effort</u> (F=1.25)	<u>+50% Effort</u> (F=1.5)
Exvessel Revenues	-14.2	-7.9	-2.4
Consumer Expenditures	-4.5	-2.5	-0.8
Total Landings	-15.7	-9.8	-2.7
Exvessel Prices	+1.8	+1.0	+0.3
Wholesale Prices	+1.5	+0.8	+0.3
Retail Prices	+0.8	+0.5	+0.1

The year-by-year impacts and percent changes are presented in Table 5. The same impacts, but with discounted revenues at 10 percent, are shown in Table 6. Note in Table 6 that although the values change from Table 5 the percentages do not and the results are identical; that is, revenues turn positive in the first quarter of the second fishing year (third quarter of 1986) and cumulative net benefits occur during the third fishing year (early 1988).

COSTS AND BENEFITS OF THE PROPOSED ACTION

1. Benefits

The results of the bio-economic impact analysis may be evaluated in terms of two major concerns of the Council. Those concerns are: 1) to enhance yield per recruit to the extent which is consistent with acceptable impacts upon the industry, and 2) to avoid the problems associated with the mixing of small scallops into the overall catch (i.e., improved spawning potential). A yield per recruit analysis is independent of the absolute level of recruitment but assumes that, over a long time span, the recruitment level is constant thus allowing comparisons between alternative analyses. The Council has determined, on the basis of yield per recruit considerations, that 30 meats per pound is an appropriate long-term average meat count in the landed catch. The results of the impact analysis for the proposed action, as shown in Tables 1 & 2 and Table A3, indicate that, for all areas and for a wide range of fishing mortality rates, the long-term average meat count (the smaller value in the ranges given) approaches 30 meats per pound. With respect to the Council's second concern, the larger number in each range of values reaches a maximum of 33 meats per pound indicating that, even in the case of only a single available year class, an insignificant number of very small scallops would be taken (given the range of minimum sizes examined) and, in fact, the objectives of the plan should be achieved.

2. Costs

Continuation of the present program would not result in the expected benefits described in the FMP. Requiring a meat count size more stringent than 40 would result in greater hardship on the industry because landings would not be made up immediately after the first year. The proposed action will result in a maximum \$17.3 million reduction in goods to the national economy as represented by consumer expenditures foregone, in current terms (5.6 million real dollars; see Table 5). The seafood producers sustain \$14.9 million (4.8 million real dollars) in losses in 1985. Price changes at all

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levels are expected to be below 2 percent, compared with general price increases of 4.3 percent in 1984. These quantitative impacts are conservative in that they are taken from the current effort case (scenario 2 on the figures). Fishing effort is expected to increase; and although such an increase will entail increased cost, it is not expected that the cost will exceed the added revenues. However, a particular level of effort was unquantifiable and two cases (+25% and +50%) are presented for comparison. Also, the biological analysis on which this economic analysis is based maintained equilibrium levels of relative year-class strengths. These impacts will be mitigated in the face of recent below average recruitment over most resource areas. Thus, the proposed action is the least cost alternative to achieving the goal of a 30 meat count average annually because: 1) the minimum level possible of meat count size (40) is chosen; 2) there are no distributional impacts because at present there is no shellstocking; and 3) the time-horizon for realizing net benefits from the measure alone is about three years (Table 5) without including the unquantifiable but expected increases in recruitment.

Additionally, the four ounce standard will be simpler to apply and enforce, resulting in potentially lower administrative and enforcement costs. Extension of enforcement to possession at all times and places in the U.S. is also not projected to increase enforcement costs because agents will initially continue their current practice. There will be no change in paperwork and recordkeeping requirements.

3. Cost-Benefit Conclusion

Although this is a cost-effectiveness analysis, the measure alone (excluding the benefits described above) produces positive net returns by the third year and positive cumulative returns within four years (Table 5). NEFC scientists have indicated that sea scallops will generally grow from about a 120 meat count size to a 40 meat count size within one year (based on Georges Bank and Mid-Atlantic resource data). Those small sea scallops not caught by either shellstockers or shuckers in the beginning of the fishing year will recruit into the fishery by the beginning of the next year and at larger individual sizes. Even with no increase in fishing effort, landings are expected to be greater than they would have been without the action during the first quarter of the second fishing year. Thus, the incremental costs shall begin to be outweighed by the incremental benefits immediately following the first year of implementation. As a further consequence, the same volume of landings after implementation of this amendment will result in less mortality and increased abundance in the long run.

The information in Tables 1 and 2 demonstrate that the proposed 40 c.e. minimum size will achieve a maximum annual average 30 meat count from the stock. The tolerance that is provided in the proposed action will allow fishermen to retain scallops up to 30% by number less than the 40 c.e. minimum size on an individual trip. Currently, the FMP also achieves the maximum average 30 meat count from the stock, but the averaging/mixing process allows fishermen to retain as many as 80% by number less than the 40 c.e. minimum size, depending upon conditions in the resource (Woods Hole Lab. Ref. Doc. No. 84-11, Table 1). The latter is the reason why benefits from recruiting year classes are being so rapidly dissipated under current circumstances.

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Although the elimination of the shell height equivalent may reduce potential catch more severely for shellstockers because of the range of meat counts expected in any given sized shell, the landings should begin to be made up immediately after the first year as described above; the expected catch from this group is currently at a low level if not zero; and the regulatory discrepancy currently in effect has diminished the effectiveness of the management program. Elimination of the shell height equivalent was one of the major questions to be answered during the public hearings; however, the response to public hearing comments (Section VIII) and the summaries of the public hearings following indicate that the subject did not come up. Additionally, the letter from the North Carolina Division of Marine Fisheries indicates that "there is no (if any) significant shell stock fishery for sea scallops". North Carolina had been the center of the shellstocking fishery.

Enforcement of regulations on product in landed form has been extended to possession at all times and places in the U.S. However, the management standards should actually be enforced at the same level as at present, i.e., on harvestors and first-level buyers/processors. Again, quantity effects should impact all levels as before, including importers and consumers. Possession of landed form should allow the market (product flow) for large scallops requiring sorting to continue in the Norfolk, Virginia, area. The inclusion of a possession prohibition will not disrupt product handling or flow, according to comments received during the initial NMFS-Industry meeting on May 22, 1984 in New Bedford, Massachusetts. Landed form is the only practical way to enforce the new standard, because the program does not apply to other scallop species. Canadian certification of sea scallops from Georges Bank is expected at the four ounce standard (40 meat count size) and is expected to result in the same quantity effects (losses mitigated after the end of the first year) as for domestic sea scallops.

4. Other E.O. 12291 Requirements

E.O. 12291 requires that the following three issues be considered:

- a. Will the Amendment have an annual effect on the economy of \$100 million or more?
- b. Will the Amendment lead to an increase in the costs or prices for consumers, individual industries, Federal, State, or local government agencies or geographic regions?
- c. Will the Amendment have significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of US based enterprises to compete with foreign based enterprises in domestic or export markets?

As indicated in the Costs section above, the proposed action will result in a maximum \$17.3 million reduction in goods to the national economy as represented by consumer expenditures foregone, in current terms (5.6 million real dollars), will decline the second year, and turn positive from 1987 onward. Price changes at all levels are expected to be below 2 percent, compared with general price increases of 4.3 percent in 1984. Administrative, enforcement, and paperwork & recordkeeping requirements are expected to remain unchanged or be reduced, thus there are no impacts on Federal, State, or local government agencies. Using employment response models from the Plan, the

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fresh and frozen processing sectors are expected to sustain losses of 69, 39, and 12 man-years from scenarios 2, 3, and 4 respectively (Atlantic Sea Scallop FMP, pages A3-33 & 34). No data are currently available for the harvesting sector, however employment impacts are expected to be proportional to the projected exvessel revenues. The reduction in landings will intensify competition for the remaining sea scallops. The purpose of the Amendment is to enhance productivity, and thus potentially promote investment and innovation in the fishery once the initial losses are dealt with. The Canadian certification program will help assure that US based enterprises will be able to compete with these foreign based enterprises in domestic markets for sea scallops. It is unclear what effect recent increases in imports from Japan and Peru, which provide different species of scallops, will have on the domestic sea scallop market. There is no export market for US landed sea scallops, which are currently all sold domestically. As a consequence, the foregoing analysis results in a finding that the proposed action does not constitute a "major rule" requiring a regulatory impact analysis vis-a-vis E.O. 12291.

5. Impacts of the Amendment relative to the Regulatory Flexibility Act and the Paperwork Reduction Act of 1980

The proposed action is not expected to have a significant effect on small entities in relation to the Regulatory Flexibility Act. NMFS has issued 1,110 permits to scallop fishing vessels as of December 1984 (all considered small entities). However, only 54 percent of these vessels have landed some sea scallops and only 20 percent are considered full-time vessels (based on 1983 data; Report on the Status of the Sea Scallop Fishery, January 1985). It is expected that all vessels operating in the fishery will be affected, as described above for the aggregate, in the same way, and that no differential effects should occur relative to competitive position, cash flow and liquidity, and ability to remain in the market. There will be no change in paperwork and recordkeeping requirements.

FINDING OF NO SIGNIFICANT ENVIRONMENTAL IMPACT

In view of the analysis presented above, it is hereby determined that the proposed action in this first amendment to the Sea Scallop FMP would not significantly affect the quality of the human environment with specific reference to the criteria contained in NDM 02-10 implementing the National Environmental Policy Act. Accordingly, the preparation of a supplemental EIS on this proposed action is not necessary.

Assistant Administrator
for Fisheries, NOAA

Date

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IV. AMENDATORY LANGUAGE

The selection of a four ounce standard (40 meat count size) is based upon the Council's judgement that it will achieve the maximum average 30 meat count on an annual basis; is appropriate in view of the limitations of other strategies; is compatible with prevailing fishing practices; and poses an acceptable level of administrative and enforcement costs. A reading of Sections 810-820 of the FMP shows that meat count (minimum size) control was implemented as a maximum average meat count/minimum shell height to allow for the practicality of mixing, with only a small but undefined proportion of the total harvest expected to fall below that average. Experience since the implementation of the FMP has shown that this is not the case, and the proposed four ounce standard is designed to correct for this problem. Implementation of measures aimed at limiting fishing mortality is part of the continuing management process (Section 840 of the FMP), and will require a subsequent amendment to the Atlantic Sea Scallop FMP. Final FMP sections concerning Licensing and Reporting (§823), Other Management Parameters (§830), Continuing Fishery Management (§840), and Data Requirements (§850) remain unchanged by this amendment.

The following specific amendatory language is useful for reconciling the differences between the current management program and the program as amended.

FMP Section 810, as amended, should read:

Preferred Alternative

In view of the evaluation of alternative management strategies presented in §620, and the detailed analysis of various strategy specifications presented in Part 7, the Council selects an overall management strategy that combines immediate implementation of controls on fishing practices (through minimum meat count restrictions) with delayed implementation of complementary measures which effectively limit fishing mortality [strategy alternative 4(a), §620]. This selection is based upon the judgement that primary control on meat count is an effective strategy for meeting the objective, is appropriate in view of the limitations of other strategies, is compatible with prevailing fishing practices, and poses an acceptable level of administrative and enforcement costs. Specification of the meat count control measure is discussed in §820.

Implementation of measures aimed at limiting fishing mortality is desirable in view of the fact that the degree to which the management objective is achievable is, in the long term, directly related to the level of fishing mortality. However, measures which limit fishing mortality are not essential in the short term because fluctuations in fishing effort over the next few years will not negate the long or short-term benefits of the meat weight control measure. The appropriate basis and means for limiting fishing mortality will be developed as part of the continuing management process (see §850), and move forward as data become available on the factors which directly affect fishing mortality (e.g., gear efficiency and the degree and nature of participation in all sectors of the fishery). In deferring action on the issue of fishing mortality, any discussion of potential measures that may have

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implications for product quality (e.g., trip length or number of tows on board) is also deferred because such measures are likely to have direct implications for effort. The adoption of quality control measures by the industry independent of this FMP is encouraged.

The management unit to which the above measures shall apply includes those sea scallops populations described in §130 and encompasses all commercial and recreational fishing activity affecting those populations.

Optimum Yield

Because of the decision not to adopt control on quantity landed as a strategy in the sea scallop management program, the actual catch in the sea scallop fishery will be a consequence of the structure and economics of the industry in relation to the abundance and condition of the resource. Control on minimum meat count is expected to have an effect on landings; although, that effect will likely be minimal in the short term (see §720, §730). Notwithstanding such catch effects, the purpose for imposition of the meat count measure is the expected effect on the productivity of the sea scallop resource, that will result in long-term benefits to the industry.

FMP Section 821, as amended, should read:

The average annual meat count is achieved by a four ounce standard for the ten smallest sea scallops in a one pound sample (40 meat count minimum), applicable to all sea scallops. The four ounce standard provides for a tolerance of up to 30 percent by number of sea scallops smaller than a 40 c.e. minimum size. Corresponding shell heights for different areas and seasons are offered as guidance in Table 3. Although shellstock may still be landed, the 3-1/2 minimum height standard is no longer sufficient, and it is necessary that shellstock meet the four ounce standard. Additionally, the Regional Director's authority to change (as detailed in Appendix A of the FMP) the average meat count/minimum shell height designations shall not be extended to the four ounce standard, and is thus revoked (Appendix A to the FMP is no longer appropriate), and enforcement of the four ounce standard shall extend to possession at all times and places in the United States. The four ounce standard is judged to be most appropriate to the overall achievement of the FMP's management objectives.

FMP Section 822, as amended, should read:

The four ounce standard (40 meat count size) is applicable to the direct and indirect harvesting of Atlantic sea scallops from all areas under United States jurisdiction and by every sector of the commercial and recreational fisheries. Specific sampling techniques for monitoring compliance with the four ounce standard are simple revisions of the current methods employed by the NMFS Enforcement Division to enforce the maximum average meat count. Enforcement of the management measures shall be accomplished through a prohibition against the possession of non-conforming sea scallops at all times and places in the United States.

FMP Section 842 is effectively deleted by this Amendment.

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V. CONSISTENCY WITH NATIONAL STANDARDS AND OTHER MANAGEMENT INSTITUTIONS AND PROGRAMS

The management strategy adopted in the amendment directly addresses stock restoration and increased yield-per-recruit through better control on age-at-entry into the exploitable part of the fishery. Further, the management strategy proposed in the amendment is expected to result in minimum implementation, enforcement and research costs, because these considerations are simply incorporated into existing programs.

Section 301 of the Magnuson Act establishes seven National Standards for fishery conservation and management with which all fishery management plans and amendments to such plans must be consistent. The proposed four ounce standard (40 meat count size) is a stricter definition of the existing management measures in the Atlantic Sea Scallop Fishery Management Plan. As such, the proposed measure is an attempt to achieve the benefits originally expected. Therefore, the consistency of the proposed measure with the National Standards is the same as for the original measures explained in Section 920 of the FMP, and need not be reiterated here. It is important to note, however, that the elimination of the meat count adjustment mechanism should not be construed as being inconsistent with National Standard #6, because the proposed action makes such adjustments unnecessary for effective conservation and management of the sea scallop resource. The FMP as amended still requires an annual review of resource status by the Regional Director, and the amendment process allows for changes in the management program.

The Council has determined that this rule will be implemented in a manner that is consistent to the maximum extent practicable with the approved coastal zone management programs of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Maryland, Delaware and North Carolina. This determination has been submitted for review by the responsible State agencies under Section 307 of the Coastal Zone Management Act.

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VI. LIST OF AGENCIES AND PERSONS CONSULTED IN FORMULATING THE PROPOSED ACTION

A. Federal Agencies

National Marine Fisheries Service, Northeast Regional Office
U.S. Environmental Protection Agency (Regions I, II, III)
Mid-Atlantic Fishery Management Council
South Atlantic Fishery Management Council

B. State Agencies

Maine State Planning Office (Maine Coastal Program)
New Hampshire Office of State Planning
Massachusetts Executive Office of Environmental Affairs
Rhode Island Coastal Resources Management Council
Connecticut Coastal Zone Management Program
New York Division of Local Government and Community Services
New Jersey Division of Coastal Resources
Maryland Department of Natural Resources (Coastal Resources Division)
Virginia Council on the Environment
Delaware Department of Natural Resources and Environmental Control
North Carolina Office of Coastal Management

C. Individuals

Daniel Arnold, Marshfield, MA
Edward Bradley, Portland, ME
Robert Brieze, Fairhaven, MA
Bernard Corson, Contoocook, NH
Roy Enoksen, New Bedford, MA
Soren Henrikson, Westport, MA
Arne Isaksen, Fairhaven, MA
Robert Lowry, Carolina, RI
Brian I. Marder, New Bedford, MA
Myron Marder, No. Dartmouth, MA
Harvey Mickelson, New Bedford, MA
Robin Peters, Stonington, ME
Susan Peterson, Boston, MA
Sarah Richards, Guilford, CT

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VII. LIST OF PREPARERS

This Amendment to the Atlantic Sea Scallop Fishery Management Plan (FMP) was prepared by a team of fishery managers and scientists with special expertise in the scallop resource. The need for management and range of alternative solutions was determined from a variety of sources including NEFC sea sampling and several NEFMC Sea Scallop Oversight Committee meetings during the past several months.

Sea Scallop Oversight Committee

Thomas Fulham
Alan Guimond
Spencer Apollonio
James Costakes
Edward Spurr

Assisting the Committee

Louis Goodreau, NEFMC Staff
Guy Marchesseault, NEFMC Staff
Howard Russell, NEFMC Staff
Sharon Lake, NEFMC Staff
Carol Kilbride, NMFS, Northeast Regional Office

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VIII. RESPONSE TO PUBLIC HEARING COMMENTS

Five public hearings were held between April 30 and May 3, 1984, concerning the amendment to the Fishery Management Plan for Atlantic Sea Scallops (FMP) in Ellsworth and Portland, ME, New Bedford, MA, Cape May, NJ, and Norfolk, VA. In addition, written comments were received before and during the formal comment period. On May 9, 1984, the Council's Scallop Oversight Committee reviewed all comments on the Draft Scallop Amendment and voted unanimously to send the amendment to the Council without change. On May 11, 1984 the full Council approved the Amendment to the Scallop FMP as submitted. The Council believes that all public comments have been addressed.

The amendment then established a minimum weight standard equivalent to a 40 meat count (0.4 ounces) for sea scallops, to replace the average meat count and minimum shell height standards, prohibited possession, and removed the adjustment of standards. In general, support was expressed for the substitution of a minimum weight standard for the average meat count and minimum shell height standards that currently exist in the FMP at all public hearings with the exception of Cape May. Cape May fishermen are opposed to the amendment unless the tolerance limits are made less severe. A number of major concerns emerged with respect to the implementation of the FMP:

1. The primary objection, expressed everywhere but in Portland, was that the tolerance limit was too strict especially with an absolute minimum weight standard, and that some measure to achieve the minimum but based on meat count would conform with industry practice. An associated comment that individual scallops cannot be weighed at sea was made in Ellsworth, New Bedford and Cape May. The Council realizes that regulations are the responsibility of NMFS, and approves the amendment with the understanding that the NMFS is already in the process of planning a series of meetings with the industry in order to institute sampling and measurement techniques which conform more to industry practice.
2. A plea for expanded and more intensive enforcement was made in Ellsworth, New Bedford and Norfolk, especially with a possession prohibition. Similarly, the comment to leave inspections at the first transaction was heard at the New Bedford and Norfolk meetings. The possession prohibition was included in the amendment to allow for easier enforcement of the regulations, and as such, also falls within the responsibility of NMFS. The Council believes that possession prohibitions in other FMP's, such as lobster, are implemented primarily at the first few levels of transaction, and that similar flexibility is needed in the Scallop FMP. Thus, the Council decided to retain the possession prohibition in the amendment, with the expectation that the possession prohibition policy found on page 7 of the amendment would be respected by NMFS and that the industry meetings mentioned in (1) above would also be used to develop policies which would protect inadvertent possession of non-conforming scallops by unsuspecting buyers.

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3. Comments were heard in Portland and Norfolk, respectively, that possession should be extended to all imports or all scallops found in the United States. The Council, by approving the amendment as submitted, reiterates its commitment to manage only Atlantic sea scallops from resource areas within the FCZ.
4. The Mid-Atlantic Council commented at the Cape May meeting that the adjustment of standards provision should be retained. The Council, again by approving the amendment as submitted, reaffirms its statement that the annual review of the resource status by the Regional Director and the amendment process remain as the vehicles for changes in the standard (page 6).
5. During the May 9, 1984 Committee meeting the comment was made that the minimum meat weight standard alone would not provide for sufficient conservation of the sea scallop resource. The Council has stated that implementation of measures aimed at limiting fishing mortality is part of the continuing management process and will be the basis for a subsequent amendment to the Atlantic Sea Scallop FMP in the future (page 22).

At its January 24, 1985 meeting the Council decided to change the standard to four ounces for any ten sea scallops, allowing for more tolerance, to achieve the 30 meat count average on an annual basis.

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NEW ENGLAND FISHERY MANAGEMENT COUNCIL
SEA SCALLOP AMENDMENT, PUBLIC HEARING SUMMARIES

APRIL 30-MAY 3, 1984

Five public hearings were held between April 30 and May 3, 1984 concerning an amendment to the Fishery Management Plan for Atlantic Sea Scallops (FMP) in Ellsworth and Portland, ME, New Bedford, MA, Cape May, N.J., and Norfolk, VA. The amendment establishes a minimum weight standard equivalent to a 40 meat count (0.4 ounces) for sea scallops, to replace the current average meat count and minimum shell height standards, prohibits possession, and removes the adjustment of standards. A summary of each public hearing is enclosed.

A number of major concerns emerged with respect to the implementation of the plan:

1. The primary objection, expressed everywhere but in Portland, was that the tolerance limit was too strict especially with an absolute minimum weight standard, and that some measure to achieve the minimum but based on meat count would conform with industry practice. An associated comment that individual scallops cannot be weighed at sea was made in Ellsworth, New Bedford and Cape May.

2. A plea for expanded and more intensive enforcement was made in Ellsworth, New Bedford and Norfolk, especially with a possession prohibition. Similarly, the comment to leave inspections at the first transaction was heard at the New Bedford and Norfolk meetings, although in Norfolk the means to implement the possession prohibition were discussed. It is problematic for processors to be held responsible for scallops after they had been purchased in good faith from a scallop vessel or from another processor.

3. Comments were heard in Portland and Norfolk, respectively, that possession should be extended to all imports or all scallops found in the United States.

4. In Ellsworth it was the generally held belief that many scallops in offshore eastern Maine do not grow to a large enough size to meet the proposed criteria before dying out.

In general, support was expressed for the substitution of a minimum weight standard for the average meat count and minimum shell height standards that currently exist in the FMP at all public hearings with the exception of Cape May. Cape May fishermen are opposed to the amendment unless the tolerance limits are made less severe.

NEW ENGLAND FISHERY MANAGEMENT COUNCIL

SEA SCALLOP AMENDMENT
PUBLIC HEARING SUMMARY

ELLSWORTH, MAINE, APRIL 30, 1984

Council member Skip Greenlaw convened the public hearing at 7:00 p.m. Representing the Council, in addition to Mr. Greenlaw, was staff member, Howard Russell. Approximately 15 people attended the meeting. The list of attendees is attached.

Mr. Greenlaw reviewed the measures in the proposed amendment, pointing out the changes relative to the existing sea scallop regulations. A number of general concerns were raised by members of the public, including problems associated with obtaining adequate numbers of larger scallops to support the industry and the generally held belief that many scallops in offshore eastern Maine do not grow to a large enough size to meet the proposed criteria before dying out.

Comments by all members of the public in attendance were unanimous in supporting the abandonment of the regulatory distinction made between shuckers and shell-stockers which is currently in effect under the Sea Scallop FMP. There was also support for the intent of the proposed amendment to eliminate the mixing of small scallops. However, several speakers expressed concern with the difficulty of at-sea measurement to comply with the narrow tolerance specifications of the proposed amendment. The concern is that in the rush of on-deck schucking activity, too many undersize scallops may inadvertently be included. Underlying this concern is the perception that most of the available resource is very close to the proposed minimum size. It was suggested that the tolerance specifications should be relaxed somewhat (e.g., that up to 4 undersized meats be allowed in ANY 1-pound sample). In essence, therefore, the major concern relates to how the proposed measure would be enforced. Several people expressed the need for a much more effective enforcement effort, not only as that relates to sea scallops but other fisheries as well.

Mr. Greenlaw closed the public hearing at approximately 8:30 p.m.

HR.0084M

NEW ENGLAND FISHERY MANAGEMENT COUNCIL

Sea Scallop Amendment
Public Hearing Summary

Portland, Maine
April 30, 1984

Council Member Spencer Apollonio called the hearing to order at 7:15 p.m. One NMFS official, two reporters, and one scallop fisherman Captain William "Billy" Sargeant from Southport, Maine were present.

After a brief summary by Mr. Marshall of what the amendment is intended to accomplish, Captain Sargeant made the following comments:

1. Shellstocking should be eliminated.
2. The imposition of a minimum size is a good idea. Mixing to achieve an average meat count is bad for the resource.
3. After the World Court has established a maritime boundary between Canada and the U.S. in the Gulf of Maine/Georges Bank area, the minimum size for scallops should apply to all scallops imported from Canada.

After a brief discussion of scallop fishing practice in Maine, Mr. Apollonio adjourned the hearing at approximately 7:40 p.m.

After adjournment another scallop fisherman came but left without making any comment. An attendance list is attached.

Attachment

DGM.0671C

NEW ENGLAND FISHERY MANAGEMENT COUNCIL
SEA SCALLOP AMENDMENT, PUBLIC HEARING SUMMARY

FAIRHAVEN, MA, MAY 1, 1984

Council member James Costakes convened the public hearing at 7:00 p.m. Representing the Council, in addition to Mr. Costakes, were Philip Coates, Patrick Carroll, and staff member Guy Marchesseault. Approximately 60 people attended the meeting; the list of attendees is attached.

Mr. Costakes reviewed the measures in the proposed amendment, discussed the timetable for implementation, and opened the floor to questions from the public. A number of clarifying questions were raised by the public and responded to by the Chair, including whether or not the proposed amendment included any restrictions on new vessels, days fished or fishing areas/times. In addition, two major concerns emerged with respect to the implementation of the plan:

1. Mr. Mickelson, in particular, expressed concern for the extension of liability beyond the point of first transaction. He indicated that it was problematic for processors to be held responsible for scallops after they had been purchased in good faith from a scallop vessel. He indicated that inspections should be conducted at the point of landing, and that all liability should be discharged at that time. Mr. Costakes noted that the extension of possession beyond the point of first transaction gave enforcement officials the flexibility they needed to adequately monitor and pursue illegal landings. He also reiterated the comment in the summary document that, in practical terms, inspections would likely have to occur before the product was resorted or otherwise distributed within the processing facility in order to fairly determine the existence of a violation. Mr. Costakes acknowledged that some sort of arrangement might have to be made between processors and vessels to limit or share the liability for possession of undersized scallops.

2. Several speakers raised concerns for how the minimum meat weight would be enforced. Concern ranged from the inability of a crew member to accurately determine a 0.4 ounce scallop to the need for a practical enforcement standard that both fishermen and enforcement agents could agree on. In general, the "absoluteness" of the minimum weight standard, the difficulty of at-sea measurement for compliance, the limited tolerance, and the enforcement agents' discretion were major factors leading to the fishermen's anxiety with the implementation of the amendment. Mr. Costakes expressed a willingness to help get enforcement officials and fishermen together to discuss the practical details of how the proposed measure might be enforced.

In general, the fishermen expressed support for the substitution of a minimum weight standard for the average meat count and minimum shell height standards that currently exists in the FMP. And although a major concern continues to exist for how the proposed measure would be enforced, several people expressed the need for better and more complete enforcement coverage.

Mr. Costakes closed the public hearing at approximately 8:50 p.m.

NEW ENGLAND FISHERY MANAGEMENT COUNCIL
SEA SCALLOP AMENDMENT, PUBLIC HEARING SUMMARY
CAPE MAY, N.J., MAY 2, 1984

Mid-Atlantic Council member Dave Hart convened the public hearing at 7:15 p.m. Representing the Councils, in addition to Mr. Hart, were John Bryson of the Mid-Atlantic staff and Lou Goodreau of the New England staff. Approximately 20 people attended the meeting; the list of attendees is attached.

Mr. Hart opened the meeting and Mr. Goodreau reviewed the summary document. Mr. Hart then opened the floor to questions from the public. A number of clarifying questions were raised by the public and responded to by Mr. Goodreau, concerning mainly the enforcement of the minimum meat weight. In addition, two major concerns emerged with respect to the implementation of the plan:

1. Several speakers raised concerns for how the minimum meat weight would be enforced. These ranged from the inability to accurately determine a 0.4 ounce scallop at sea to the need for a practical enforcement standard that conforms more to industry practice; i.e., based on some form of meat count. In particular, most felt that 4 undersized scallops in each of any three samples was a much less than 10% tolerance (effectively 12 out of 300, or 4% tolerance), to the degree that if the standard were not changed to include a 10% tolerance they would prefer to remain with the 30 meat count average after May 15, 1984. One person preferred the 30 meat count average to the minimum meat weight, regardless of the implementation standards of the minimum. Further, one speaker recommended that the standard be changed to taking the 40 smallest scallops from all 10 samples and requiring that they weigh at least one pound, which conforms more to the industry practice of using meat counts to assess the catch.

2. The Mid-Atlantic Council recommended that the adjustment of standards provision remain as part of the amendment to facilitate future reductions to 35 and 30 meat count minimums.

Several speakers expressed support for emergency implementation of a minimum weight standard to replace the average meat count and minimum shell height standards, although opposition continues to exist for how the proposed measure would be enforced. General comments included: cut meats should not be measured against the standard as has recently happened; samples should be taken from the middle of the bag by splitting it open, rather than from the top of the bag where many meats get crushed; the standard should not be "advertised" as a 40 meat count minimum, but as a 28 meat count average because that is the way the industry assesses its catch; one processor remarked that he sampled 5 pounds of scallops and found a meat count of 22, while the NMFS agent took 10-one pound samples and found meat counts of 26, 28, etc.

Mr. Hart closed the public hearing at approximately 8:45 p.m.

NEW ENGLAND FISHERY MANAGEMENT COUNCIL
SEA SCALLOP AMENDMENT, PUBLIC HEARING SUMMARY
NORFOLK, VA, MAY 3, 1984

Council member Alan Guilmond convened the public hearing at 7:15 p.m. Representing the Council, in addition to Mr. Guilmond, was staff member Lou Goodreau. Approximately 10 people attended the meeting; the list of attendees is attached.

Mr. Guilmond reviewed the summary of the proposed amendment, discussed the timetable for implementation, and opened the floor to questions from the public. One question requiring clarification was whether processors were liable if sold non-conforming scallops by a vessel. Mr. Guilmond responded that if they were in possession then they were liable. In addition, two major concerns emerged with respect to the implementation of the plan:

1. Mr. Coogan expressed concern for the extension of liability beyond the point of first transaction. He indicated that it was problematic for processors to be held responsible for scallops after they had been purchased in good faith from a scallop vessel or from another processor. Mr. Amory indicated that inspections should continue to be conducted at the point of first transaction, stating that a market for large scallops existed which required the sorting out of small scallops. Mr. Coogan indicated a desire for a practical enforcement standard that conforms more to industry practice, such as checking one full bag or sampling 10% of the total number of bags. He also distrusted the comment in the summary document that the possession prohibition will be enforced principally on landed form, fearing that he may be found in violation on the basis of samples from a number of vessels' landings, or after the bags had been sorted. Other comments relevant to the possession prohibition were a request for a certification program for domestically landed and all imported scallops, expected delays in payments until scallops had been found to be conforming or had been sold to a subsequent buyer, and quick movement of small scallops through the marketing channels.

2. Mr. Thomas indicated that more enforcement agents were needed, especially with a possession prohibition, to assure buyers that they were not being sold non-conforming scallops. In general, most felt that enforcement had to be enhanced in order to achieve compliance with the minimum meat weight measure. One recommendation was to hire part-time, on-call agents who could respond when transactions occurred. The comment was made that scallops were inspected infrequently in Norfolk at the present time.

Mr. Thomas questioned whether seasonal closures or limited entry were or would be considered in future amendments, and general interest was shown in helping to develop any such program.

In general, the processors expressed support for the substitution of a minimum weight standard for the average meat count and minimum shell height standards that currently exist in the FMP.

Mr. Guilmond closed the public hearing at approximately 8:45 p.m.

Scallops #6 - 5/11/84



North Carolina Department of Natural Resources & Community Development

James B. Hunt, Jr., Governor

James A. Summers, Secretary

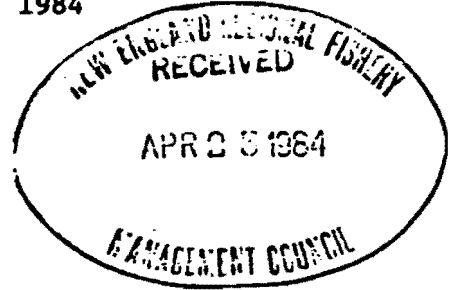
DIVISION OF
MARINE FISHERIES

Robert K. Mahood
Director

Telephone 919 726-7021

April 19, 1984

Mr. Doug Marshal, Executive Director
New England Fishery Management Council
Suntaug Office Park, 5 Broadway (Route 1)
Saugus, Massachusetts 01906



Dear Doug:

The South Atlantic Fishery Management Council and the N.C. Division of Marine Fisheries offer no objection to the proposed sea scallop minimum weight amendment equivalent to a 40 meat count, with a tolerance of not more than 3 undersized sea scallops per pint (approximately one pound of meat). I have contacted several of the N.C. industry leaders that are usually involved in the sea scallop fishery and received favorable response concerning the minimum meat count proposal. I was also able to determine that there is no (if any) significant shell stock fishery for sea scallops.

Based on direction obtained at the last South Atlantic Fishery Management Council (SAFMC) meeting, please consider this position as representing North Carolina and the SAFMC. There does not appear to be a valid reason for a public hearing in North Carolina or the SAFMC area.

Let me know if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Edward G. McCoy".

Edward G. McCoy
Assistant Director

EGM/cs

CC: Bob Mahood
SAFMC
Press Pate

WELLS *Scallop* COMPANY

POST OFFICE BOX 600 • SEAFORD, VIRGINIA 23696-0600

Bill Wells, Jr.
Bill Wells III

(804) 898-8512

May 9, 1984

New England Fishery Management Council
Suntaug Office Park
5 Broadway (Rt 1)
Saugus, Mass. 01906

Attn: Alan D. Guimond

Dear Mr. Guimond,

I am writing as a follow up to the comments made at the public hearing in Norfolk, May 3rd, on the amendment to the FMP for sea scallops. As owner of eleven scallop trawlers, a packing house and a marine supply store, I see the need for increased conservation and I strongly support your proposal. I feel the intent of the amendment will be most effective if you accomplish the following:

1. Increase enforcement in all areas. Here in the Mid-Atlantic Region, we have two agents to cover all of North Carolina, Virginia, and Cape May, New Jersey. Cape May fishhouses are paying two prices, one for legal count scallops, and the other for undersized scallops. If the enforcement is ineffective in Cape May, it is nonexistent in North Carolina, where in Wanchese packers are unloading small scallops daily. Violations of the existing regulations are in evidence in all three states, especially in Cape May, New Jersey, and in Wanchese, North Carolina.
2. Imported scallops should be limited to the same sizes that domestic producers are allowed to catch. This will prevent processors from claiming that small scallops in their plants are foreign imports. We must be able to police the industry at all levels, not just at the loading dock. However, if limiting import sizes is not possible, I remain strongly in favor of the amendment.

Please keep me informed of any meeting which I may attend regarding the scallop industry. I am particularly interested in attending the Canadian-U.S. hearings regarding sovereignty of the Georges Banks.

Sincerely,

William S. Wells

William S. Wells

