

NATIONAL MARINE FISHERIES SERVICE REPORT ON
COASTAL PELAGIC SPECIES MANAGEMENT

Situation: National Marine Fisheries Service (NMFS) will briefly report on recent developments in the coastal pelagic species fishery and other issues of relevance to the Council.

Council Task:

1. Council discussion.

Reference Materials: None.

Agenda Order:

- a. Informational Update
- b. Reports and Comments of Advisory Bodies
- c. Public Comment
- d. Council Discussion

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PFMC
03/21/03

APPROVE FINAL REGULATORY AMENDMENT AND ANALYSIS
FOR CHANGES TO THE SARDINE ALLOCATION

Situation: The Council will review Exhibit G.2.b, CPSMT Report – *Discussion and Analysis of Management Alternatives for an Interim Revision to the Pacific Sardine Allocation Framework within the Coastal Pelagic Species Fishery Management Plan*. This draft Environmental Assessment (EA) was prepared per Council guidance at the November 2002 and March 2003 meetings. Based on its review of the EA, advisory reports, and public comment, the Council is scheduled to take final action on the allocation alternatives and provide guidance for finalizing the regulatory amendment.

At the March 2003 meeting, the Council selected five sardine allocation alternatives for public review:

- Alternative 1 Initial allocation January 1, 66% to southern area, 33% to northern area; dividing line Pt. Piedras Blancas; re-allocation 50%-50% on October 1. **This is status quo or no action.**
- Alternative 2 Initial allocation January 1, 66% to southern area, 33% to northern area; **dividing line Pt. Arena; re-allocation 50%-50% on September 1; coastwide December 1.**
- Alternative 3 Initial allocation January 1, 66% to southern area, 33% to northern area; **dividing line Pt. Arena; re-allocation 80%-20% on September 1; coastwide December 1.**
- Alternative 4 Initial allocation January 1, 66% to southern area, 33% to northern area; dividing line Pt. Piedras Blancas; **re-allocation 50%-50% on September 1; coastwide December 1.**
- Alternative 5 Initial allocation January 1, 66% to southern area, 33% to northern area; **dividing line Pt. Arena; coastwide on September 1.**

The differential impacts of the alternative are analyzed and discussed in the draft EA. If the Council takes final action at this meeting, it is anticipated National Marine Fisheries Service will implement the regulatory amendment in August 2003.

In taking final action, the Council may select a preferred alternative and provide specific direction to complete the regulatory amendment package. Also, the Council may indicate whether the revised allocation framework is a short-term (e.g., 2003 and 2004) measure or intended to be in place for a longer period. If it is an interim measure, the Council could include a sunset provision. The Council could also direct the Coastal Pelagic Species Management Team (CPSMT) and staff to initiate an amendment to the fishery management plan for a longer-term allocation framework.

Council Action:

1. **Adopt regulatory amendment and analysis for changes to the sardine allocation.**

Reference Materials:

1. Exhibit G.2.b, CPSMT Report – *Discussion and Analysis of Management Alternatives for an Interim Revision to the Pacific Sardine Allocation Framework within the Coastal Pelagic Species Fishery Management Plan*.
2. Exhibit G.2.c, Public Comment.

Agenda Order:

- a. Agendum Overview
 - b. Reports and Comments of Advisory Bodies
 - c. Public Comment
 - d. **Council Action:** Adopt Regulatory Amendment to the Coastal Pelagic Species Fishery Management Plan
- Dan Waldeck

Discussion and Analysis of Management Alternatives for an Interim Revision to the Pacific Sardine Allocation Framework within the Coastal Pelagic Species Fishery Management Plan

I. Introduction

Purpose: Implement an interim^{1/} allocation framework that seeks optimal use of the annual Pacific sardine harvest guideline with minimal impacts on any sector of the West Coast sardine fishing industry and fishing communities.

Need: This action addresses recent problems which have occurred as a result of the current allocation framework.

Description of Purpose and Need

Critical to any Environmental Assessment (EA) is the degree to which the alternative management actions have biological and/or socioeconomic impacts on the affected environment. The affected environment germane to this EA is the West Coast population of Pacific sardine, the ecosystem in which they reside, the various regional harvesting and processing sectors, and the communities dependent on the sardine resource. The critical consideration for this proposed action is the distinction between biological and economic effects of the various management alternatives.

The Coastal Pelagic Species Management Team (CPSMT) generally agreed that (measurable) implications of alternative allocation schemes used to partition the Pacific sardine harvest guideline largely involve socioeconomic considerations, given the current recommended yield is generated from analysis based on the dynamics of a single, coast-wide population. Moreover, the CPSMT is confident the sardine harvest guideline control rule provides an appropriate means to manage the sardine fishery (see the CPS Fishery Management Plan [FMP]). However, in the future, the CPSMT suggests that biological-based implications of different allocation schemes be further evaluated, at least in qualitative terms, to provide management some guidance regarding how the operations of the sectoral fisheries might impact the dynamics of the sardine population at large. For example, research on coastwide abundance of sardine and a CPS Stock Assessment Review (STAR) process will occur in 2003. These initiatives should provide useful information that could be incorporated into considerations of longer-term allocation measures.

In summary, there is a compelling need to prevent socioeconomic problems in 2003 and there is not a resource sustainability concern. Therefore, development of an interim management measure for allocation of the coastwide harvest guideline is being pursued and analysis of alternatives will focus on economic information. It is the intent of the Council to follow this action with a more comprehensive development of a longer-term allocation mechanism that would entail a more detailed analysis of alternative allocation frameworks in terms of socioeconomic and biological impacts. It is important to note that the CPSMT recognized that a more detailed analysis that meets long-term goals may require substantial work and subsequent, time demands on researchers. In this regard, the CPSMT strongly advised that the revisions to the current allocation scheme discussed here be considered strictly temporary measures that address emergency-related issues associated with early closures to fisheries based on quota stipulations. The CPSMT further concurred the interim measures (i.e., re-allocation regulations) be considered for the current fishing year (2003) and potentially 2004. The CPSMT advised that a longer-term allocation scheme should be in place prior to the 2005 fishing year.

1/ Interim measures are being considered for the current fishing year (2003) and potentially 2004. The intent is to develop a longer-term allocation scheme after this action is completed.

Background

The current allocation formula partitions the annual harvest guideline 66% to the southern subarea and 33% to the northern subarea. Nine months after the January 1 start of the fishery (i.e., October 1) the remaining harvest guideline is pooled and re-allocated 50-50 to each subarea. The current subarea line is 35° 40' N latitude (approximately Pt. Piedras Blancas). This formula was incorporated into federal management from existing California state law. At the time of the FMP's implementation, this was considered a status quo action with no environmental impacts. No alternative allocation formulae were considered. The FMP does not preclude additional allocations based on other geographic areas or other factors developed under the authority of the FMP and provides for allocation matters to be addressed under the socioeconomic point-of-concern framework. The southern subarea primarily includes the fleet based in San Pedro and Los Angeles, California. The northern subarea includes fisheries off Monterey, California; Oregon; and Washington.

With expansion of the Pacific sardine fishery into the Pacific Northwest, the northern area allocation is now shared by Monterey-, Oregon-, and Washington-based fisheries. Concern has been expressed the current allocation formula does not provide optimal harvest opportunity to these respective fisheries. For example, under the current allocation framework (and given status quo harvest levels) there is a high likelihood the northern area fisheries will attain their portion of the annual harvest guideline prior to the scheduled October 1 reallocation, which (as described below) effectively causes premature closure of the Pacific Northwest fishery. Specific socioeconomic concerns include:

- Pacific Northwest fisheries generally finish operations in October, because weather and ocean conditions make fishing difficult or impossible for purse-seine gear and less productive because sardine schools are harder to locate. In 2002, the northern area allocation was reached and the fishery closed on September 14, 2002 (67FR58733). Due to concern over community impacts resulting from this closure, NMFS promulgated an emergency rule, to re-allocate the unused amount of the coastwide harvest guideline on September 26, 2002 (67FR60601). That is, emergency action was taken to reallocate before October 1, 2002. The express purpose of this emergency rule was to avoid unnecessary economic hardship. Sufficient amounts of the sardine harvest guideline remained to satisfy all users.
- Monterey area fisheries target squid (when available) during the first half of the year and begin to target sardine around August, with their season running through January or February of the following year. Concern has been expressed that harvest opportunity for the Monterey fishery could be preempted by the Pacific Northwest fishery. The existing allocation system (as incorporated from the former California state management system) was designed to prevent the Southern California fishery from preempting the fishery in Monterey. However, the development of significant fisheries off Oregon and Washington has changed the harvesting dynamics.
- The harvest control rule for Pacific sardine is environmentally-based and tuned to the importance of sardine within the ecosystem. It is based on the best available science and the annual harvest guideline is set at a sustainable level. A principle goal of the CPS FMP is to ensure full utilization of the annual coastwide harvest guideline. However, in recent years as much as 59,000 mt of the harvest guideline was left unharvested at the end of the season. Concern has been expressed that this foregone harvest opportunity could be exacerbated by the current allocation formula, and could result in an unnecessary impact to the coastwide fishery and loss in net national benefit.

Each of the three sectors operate over a unique schedule. Generally, Southern California starts harvesting sardine January 1 and increases steadily throughout the year; Northern California starts in August (tied to market squid availability) and increases through January or February of the following year; and Oregon and Washington have a much more abbreviated season, which starts in June and ends in October. Because these sectors operate on very different schedules, annual allocations help to ensure that each sector receives a reasonable fishing opportunity. Landings in all sectors are driven by domestic and international market forces. The Northern California fishery is also influenced by availability of market squid and adverse weather. The Pacific Northwest fishery is affected by sardine availability and adverse weather.

Future Considerations

In the future, when information becomes available, some biological questions relating to allocation and differential impacts on the coastwide resource from the three fishing sectors that could be evaluated generally include:

- Impacts to the coastwide population from a fishery that targets older, mature fish.
- Impacts to the coastwide population from a fishery that targets younger, immature fish.
- Recent indications of changes in maturity rates (i.e., delayed maturity) in the southern fishery resulting from density-dependent factors.
- Potential refinements to the Pacific sardine assessment and/or harvest control rule in response to new biological information.

As data become available, this information, along with more robust economic information on producer profit and surplus, will be considered in crafting longer-term management alternatives for annual allocation of the Pacific sardine harvest guideline. As noted, it is expected that, once an interim measure is in place, the Council will embark on an amendment to the CPS FMP.

II. Management Alternatives Considered

In developing alternative management measures for an interim change to the Pacific sardine allocation formula the CPSMT started from an initial suite of alternatives proposed by the Council in November 2002. The Council gave discretion to the CPSMT to develop the most appropriate set of alternatives, including development of new alternatives. As described below, the CPSMT settled on a set of alternatives that could most practicably provide for consideration of an interim change that could be implemented in 2003.

The alternatives *initially* reviewed by the CPSMT were:

1. Status quo.
2. No allocation – institute a coastwide harvest guideline.
3. Move northern boundary of southern subarea from 35°40' N latitude to 39° N latitude, change reallocation date from October 1 to September 1 (or August 1), and provide for December 1 reallocation to a coastwide harvest guideline.
Sub-alternatives for initial allocation
 - a. 33% to the north, 66% to the south.
 - b. 50% to the north, 50% to the south.
4. Change reallocation date from October 1 to September 1 or (August 1), and provide for December 1 reallocation to a coastwide harvest guideline.
Sub-alternatives for initial allocation
 - a. 33% to the north, 66% to the south.
 - b. 50% to the north, 50% to the south.

In analyzing these initial alternatives, some alternatives were eliminated and other alternatives were developed. The full range of alternatives considered by the CPSMT is described in Section 4 along with the rationale for eliminating particular alternatives. A key consideration was – what are the most practicable alternatives for implementation in 2003 to prevent adverse fishery impacts? These alternatives and analyses were developed during public meetings of the CPSMT, Coastal Pelagic Species Advisory Subpanel (CPSAS), and Council. Opportunity for public comment was provided and public input was considered.

The CPSMT alternatives put forward for Council consideration were:

- Alternative 1** Status quo.
- Alternative 2** Move subarea line to 39° N latitude, change reallocation date to September 1 (50% to the south and 50% to the north), add December coastwide reallocation.
- Alternative 3** Move subarea line to 39° N latitude, change reallocation date to September 1 (80% to the south and 20% to the north), add December coastwide reallocation.
- Alternative 4** Do not change subarea line, change reallocation date to September 1 (50% to the south and 50% to the north), add December coastwide reallocation.

The CPSAS recommended also including:

- Alternative 5** Move subarea line to 39° N latitude, reallocate the remaining harvest guideline coastwide on September 1.

The following are the five sardine allocation alternatives selected by the *Council* for public review.

Summary of Impacts

Alternative 1 (status quo) – With a 10% increase in harvest from 2002, the northern subarea would close in late-August. Reallocation (50-50) would occur on October 1, the Monterey fishery would likely reopen, but Oregon and Washington would be shut down the remainder of the year. Approximately 9,847 mt of the coastwide harvest guideline would not be caught by the end of the season.

Alternative 2 (start year with 66-33 allocation, subarea line to 39° N latitude, September 1 [50-50] reallocation, and December 1 [coastwide] reallocation) – With a 10% increase in harvest from 2002, the coastwide fishery closes early in November. This does not impact the Oregon/Washington fishery, which, generally, closes in October due to weather. The fishery would reopen coastwide on December 1, but

approximately 3,321 mt of the coastwide harvest guideline would remain at the end of the year. Relative to the status quo, Southern California would forego 3,618 mt and Northern California would gain 35 mt, and Oregon/Washington would gain 10,108 mt.

Alternative 3 (start year with 66-33 allocation, subarea line to 39° N latitude, September 1 [80-20] reallocation, and December 1 [coastwide] reallocation) – With a 10% harvest increase, the Oregon/Washington fishery closes in late-September. Both California fisheries close in late December. All of the coastwide harvest guideline would be harvested. Southern California would forego about 225 mt, Northern California would gain 2,449 mt and Oregon/Washington would gain 7,622 mt.

Alternative 4 (start year with 66-33 allocation, subarea line not changed, September [50-50] reallocation, and December [coastwide] reallocation) – With a 10% increase in harvest, the northern subarea would close in late-August. Reallocation (50-50) would occur on September 1, the Monterey fishery would likely reopen, close again in mid-November, and reopen in December; Oregon and Washington would be shut down the remainder of the year. Approximately 1,482 mt of the coastwide harvest guideline would not be caught by the end of the season. Southern California would realize no change in landings, Northern California would gain 274 mt and Oregon/Washington would gain 8,091 mt.

Alternative 5 (start year with 66-33 allocation, subarea line to 39° N latitude, September coastwide reallocation) – With a 10% increase in harvest from 2002, southern California and northern California fisheries would close in early December, while there would be no early closure for Oregon/Washington. All of the coastwide harvest guideline would be harvested. Southern California would forego about 2,500 mt, Northern California would gain 2,239 mt and Oregon/Washington would gain 10,108 mt.

The following table displays relative impacts of the five alternatives; impacts include early closure of a sector, foregone harvest by sector, and un-attained coastwide harvest guideline.

Table 2-1. Options for restructuring the 2003 sardine allocation framework (based upon 2002 landings inflated by an assumed expansion of 10% for each sector).

	S. CA		N. CA		OR/WA		Coastwide OY	
	Early Close	Landings (mt) Gained or Foregone Relative to Status Quo	Early Close	Landings (mt) Gained or Foregone Relative to Status Quo	Early Close	Landings (mt) Gained or Foregone Relative to Status Quo	Achieved ?	Amount left (mt)
1. Status Quo	N	0	Y	0	Y	0	N	9,847
2. (Pt Arena, Sept. 50-50, Dec. coastwide)	Y	(3,618)	Y	35	N	10,108	N	3,321
3. (Pt. Arena, Sept. 80-20, Dec. coastwide)	Y	(225)	Y	2,449	Y	7,622	Y	0
4. (Sept. 50-50, Dec. coastwide)	Y	0	Y	274	Y	8,091	N	1,482
5. (Pt. Arena, Sept. reallocate coastwide)	Y	(2,500)	Y	2,239	N	10,108	Y	0

III. Affected Environment

As noted above, this interim action is not anticipated to have positive or negative biological impacts or create resource conservation concerns. Impacts are anticipated to be isolated to trade-offs among harvest opportunity provided to each of the three fishery sectors and attainment of the annual harvest guideline.

Comprehensive information on the affected environment may be found in Appendix A and Appendix D to the CPS FMP^{2/}. The California Current is the eastern boundary of the North Pacific great subtropical anticyclonic gyre. At the northern extreme, subarctic water is entrained to flow equatorward. The great shifts in ocean climate at the decadal to century scale control the eastern boundary along the coasts of Washington, Oregon, California and Baja California. The California Current and the subarctic entrained waters are known as the "Transition" zone. The mixing of these waters with the seasonal coastal wind driven upwelling yield highly structured waters with patches of high nutrient and high productivity. High nutrient levels result from a winter buildup of regenerated nutrients and new nutrients from a shoaling thermocline, an influx of high-nutrient, subarctic water and small coastal intrusions of newly upwelled water. Pelagic fish species dominate the exploitable biomass of the system, with major concentrations of anchovy and squid close to the coastline ranging offshore to the habitats of sardine and jack mackerel. The California Current ecosystem is essentially a region of transport, coastal jets, divergence, and upwelling. None of the stocks managed under the CPS FMP are considered overfished.

Seasonal and interannual environmental variability within the California Current ecosystem are associated with variations in the Pacific Basin atmospheric pressure systems, which control the local winds and Ekman transport, and affect flows of the equatorward California Current, the poleward undercurrent, and the inshore countercurrent. Variations on time scales of several years to decades are associated with alterations in the tropical and Aleutian pressure systems, (i.e., the El Niño southern oscillation [ENSO] phenomenon and the Pacific Decadal Oscillation [PDO]). ENSO and PDO events markedly alter flow and temperature of currents in the California Current.

Anchovy, sardine, hake, jack mackerel, and Pacific mackerel achieve the largest populations in the California current region as well as in other major eastern boundary currents. These populations are key to the trophic dynamics of the entire California Current ecosystem. Anchovy and sardines are the only fish in the ecosystem that consume large quantities of primary production (phytoplankton), all five of the species are significant consumers of zooplankton. All five species of fish, particularly mackerels and hake, and also squid are important predators of the early stages of fish. The juvenile stages of squid and all five species of finfish, and in many cases the adults, are important as forage for seabirds, pinnipeds, cetaceans, and other fish.

Trophic interactions between CPS and higher-trophic-level fish are poorly understood, and it is unknown if populations of individual predaceous fish are enhanced or hindered by large populations of CPS. It is not known if the value of CPS as forage to adult predators outweighs the negative effects of predation by CPS on larvae and juveniles of predator fish species plus competitive removal of phytoplankton, zooplankton, and other fish.

Essential Fish Habitat

A complete description of CPS essential fish habitat (EFH) may be found in Appendix D of the CPS FMP. In determining EFH for CPS, the estuarine and marine habitat necessary to provide sufficient production to support maximum sustainable yield and a healthy ecosystem were considered. Using presence/absence data, EFH is based on a thermal range bordered within the geographic area where a managed species occurs at any life stage, where the species has occurred historically during periods of similar environmental conditions, or where environmental conditions do not preclude colonization by the species. The specific description and identification of EFH for CPS finfish accommodates the fact the geographic range of all species varies widely over time in response to the temperature of the upper mixed layer of the ocean, particularly in the area north of 39° N latitude. This generalization is probably also true for market squid, but

2/ Unless stated, appendices cited in Section 3 refer specifically to appendices to the CPS FMP, not the current EA/RIR document.

few data are available. Adult CPS finfish are generally not found at temperatures colder than 10° C or warmer than 26° C. Preferred temperatures (including minimum spawning temperatures) are generally above 13° C. Spawning is most common at 14° C to 16° C.

Predators

Northern anchovy, Pacific sardine, and market squid are probably important as forage to a long list of fish, birds, and mammals, including threatened, endangered, and depleted species (Morejohn *et al.* 1978). Some of the more important squid predators are king salmon, coho salmon, lingcod, rockfish, harbor seals, California sea lions, sea otters, elephant seals, Dall's porpoise, sooty shearwater, Brandt's cormorant, rhinoceros auklet, and common murre.

Coastal pelagic species are eaten by several species of marine mammals, dependence on CPS varies by age from predator to predator. A great deal of information is available about the diets of adult marine mammals, and the total amount of CPS eaten per year has been estimated for a few. It is not currently possible, however, to estimate the total amount of CPS used as forage by all marine mammals in the California Current ecosystem or the size of CPS populations necessary to sustain predator populations. Some of the species, such as the Pribilof population of the northern fur seal, are listed as depleted, but a local stock at San Miguel Island is not depleted.

Pelagic schooling fish are key components of marine food webs and primary prey of many seabirds. CPS are important to seabirds because of their abundance near the sea surface, relatively small size, fusiform shape, and dense concentration. Seabird populations of the California Current ecosystem and other eastern boundary currents are large relative to areas not driven by large-scale coastal upwelling.

Coastal pelagic species are consumed by a large number of seabirds off the coasts of California, Oregon, and Washington. Availability of anchovies is known to directly affect the breeding success of pelicans, terns, gulls, and auks. It is likely that many predators of anchovies will also eat sardines as the sardine population increases. Owing to their size and occurrence near the surface, Pacific mackerel are likely to be important to seabirds, especially in Southern California. Pacific mackerel have been observed in the diet of pelican. Adult jack mackerel are probably less important to seabirds, because of their large size and relatively deep schooling habits. Studies of seabird diet during autumn, however, when small jack mackerel are near shore and more available, may indicate their seasonal importance as forage. Recent increased abundance of sardines off Southern California was followed by increased breeding success and abundance of brown pelicans.

Fishing Industry

The sardine fishery was first developed in response to demand for food during World War I. Landings increased from 1916 to 1936, and peaked at over 700,000 mt. The Pacific sardine supported the largest fishery in the western hemisphere during the 1930s and 1940s, with landings along the coast in British Columbia, Washington, Oregon, California, and Mexico. The fishery declined, beginning in the late 1940s and with some short-term reversals, to extremely low levels in the 1970s. There was a southward shift in the catch as the fishery decreased, with landings ceasing in the northwest in 1947 through 1948, and in San Francisco in 1951 through 1952. Sardine were primarily used for reduction to fish meal, oil, and as canned food, with small quantities taken for live bait. An extremely lucrative dead bait market developed in central California in the 1960s.

In the early 1980s, sardine began to be taken incidentally with Pacific (chub) mackerel and jack mackerel in the Southern California mackerel fishery and primarily canned for pet food, although some were canned for human consumption. As sardine continued to increase in abundance, a directed fishery was reestablished.

Coastal pelagic species of finfish landed by the roundhaul fleet (fishing primarily with purse seine or lampara nets) are sold as relatively high volume/low value products (e.g., Pacific mackerel canned for pet food, Pacific sardine frozen and shipped to Australia to feed penned tuna or to Japan for longline bait, and Northern anchovy reduced to meal and oil). In addition to fishing for CPS finfish, many of these vessels fish for market squid, Pacific bonito, bluefin tuna, and Pacific herring.

Other vessels target CPS finfish in small quantities, typically selling their catch to specialty markets for relatively high prices. During the period 1993 through 1997, these included:

- Approximately 18 live bait vessels in Southern California and two vessels in Oregon and Washington that landed about 2,000 mt per year of CPS finfish (mostly Northern anchovy and Pacific sardine) for sale to recreational anglers.
- Roundhaul vessels that take a maximum of 1,000 mt to 3,000 mt per year of Northern anchovy that are sold as dead bait to recreational anglers.
- Roundhaul and other mostly small vessels that target CPS finfish (particularly Pacific mackerel and Pacific sardine) for sale in local fresh fish markets or canneries.

In Oregon, Pacific sardine is managed as a developmental fishery. In 2001, the number of permits was increased from 15 to 20. Permit stipulations include: permit is not transferable; logbook is required; observers are allowed on board; a grate must be placed over the hold to sort out larger fish; renewal of the permit is subject to meeting minimum annual landing requirements of five landings of sardines of at least 500 pounds each, or one landing of at least 5,000 pounds.

In Washington, sardines are currently managed under Emerging Commercial Fishery provisions as a trial commercial fishery. The Washington Fish and Wildlife Commission first approved a trial ocean purse seine sardine fishery in 2000, and the fishery has occurred for the last three years. As part of the trial fishery regulations, Washington Department of Fish and Wildlife (WDFW) requires fishers to pay for, and carry at-sea observers, primarily to collect bycatch information. Bycatch has been recorded in terms of species, amount, and condition; observers noted whether the fish were released or landed, and whether the fish were alive, dead, or in poor condition. Permits in a trial emerging fishery, by law, may not be limited. However, WDFW is currently pursuing moving the fishery to limited entry. In 2002, WDFW issued 35 permits and 19 vessels made landings. The majority of the catch was accounted for by 13 vessels. In 2002, Washington's trial fishery was managed to a state harvest guideline of 15,000 mt.

Community Impacts

Community impacts indicate the amount of economic activity, in terms of sales, income and employment, that is generated by the business operations of economic entities within a particular geographic region. The economic impacts of changes in the Pacific sardine harvest guideline allocation framework are expected to impact coastal communities in southern California (San Pedro/Los Angeles), northern California (Monterey) and in Oregon and Washington (Astoria/Ilwaco).

It has been shown, that each of the non-status quo alternatives will have different impacts on sectoral fishing opportunities, and on the overall level of harvest guideline utilization. In general, a gain/loss in landings for a particular sector will result in increased/decreased economic activity in that sector's sardine fishery and related business sectors. Moreover, because the harvest guideline is not fully utilized under the status quo alternative, it is possible for all sectors to be made better off in terms of increased economic activity, or at least no sector being made worse off. Therefore, referring to Table 2-1, relative to the status quo alternative 2 would result in an increase in economic activity in northern California and the Oregon/Washington and a decrease in economic activity in southern California. Likewise, alternative 3 would result in decreased economic activity in southern California, although not to the degree of alternative 2, and increased economic activity in northern California and Oregon/Washington. Alternative 4 would not result in any decrease in economic activity across sectors. Alternative 5 would result in an increase in economic activity in northern California and the Oregon/Washington and a decrease in economic activity in southern California.

Industry sources have pointed out that given the short season of the Oregon/Washington fishery, closure of this fishery prior to October (when weather generally closes the fishery) could have a significant impact on dependent communities. Closure of the Southern California fishery in November or early December could also have community impacts, because the peak season for the San Pedro-based CPS fleet runs from the

fall months through January or February. In addition, representatives from the Pacific Northwest sector remarked that, under status quo, shutting down production in September for more than a week would result in the loss of their labor force making it impossible to restart after the reallocation on October 1.

IV. Analysis of Management Alternatives

As noted above, this interim action is not anticipated to have adverse biological impacts or create resource conservation concerns. Impacts are anticipated to be isolated to trade-offs among harvest opportunity provided to each of the three fishery sectors and attainment of the annual harvest guideline. Analysis of the environmental impacts of the Pacific sardine harvest control rule are available in the CPS FMP.

Anticipated Impacts in Terms of Attainment of the Harvest Guideline and Foregone Harvest

In developing and analyzing the management alternatives, the CPSMT used an analytical tool that forecasted how the various alternatives would impact the three fishing sectors. The analysis provided expected yields to each fishing sector for each of the alternatives, based on 2002 landing statistics. Inputs included average landings by month and area and maximum landings by month and area. Generally speaking, the two areas (north and south) include three fishing sectors – Southern California, Northern California, and Pacific Northwest. Under certain of the alternatives the area "south" includes Southern and Northern California, and the area "north" includes Oregon and Washington. Under all other alternatives, "south" represents Southern California and "north" represents Northern California, Oregon and Washington.

This approach provides information regarding the amount of the annual harvest guideline likely to be left unharvested at the end of the year, as well as the amount of harvest opportunity gained or foregone by each sector under the various alternatives. As noted in Section I, for this interim management measure, these two issues are the central focus of the analysis – (1) how to ensure achievement of the coast-wide harvest guideline, while (2) minimizing detrimental economic impacts on the various fishery sectors. The former is measured by how much of the harvest guideline remains at the end of the year and the latter in terms of how much harvest opportunity is foregone by a given sector and the timing and duration of subarea closures.

Initially, three different landings utilization scenarios were reviewed. Each scenario provided insight into how the 2003 fishing season would be expected to progress based on landing statistics observed in 2002. The first was based on average monthly landings for each of the three sectors. The second was based on maximum monthly landings for each of the three sectors. The third was based on average monthly landings in each of the California fisheries and maximum monthly landings in the Pacific Northwest; this was premised on the assumption that California fisheries are generally stable, whereas Oregon and Washington fisheries are expanding. The scenarios were reviewed to ensure they would provide a realistic analysis of potential impacts and if they should be used to compare impacts of the alternatives.

In regard to maximum versus average monthly landings, it was noted that in California the squid fishery will heavily influence sardine landings. If squid is available, sardine landings are likely to be in accord with recent averages. If squid is not available sardine landings will likely approach recent maximum landings.

It was also noted the scenario premised on average landings coastwide is probably not representative of how the fishery will operate in the future. Notably, because the northern fishery is still expanding and market disruptions (domoic acid, VHS) that dampened the southern fishery might not repeat during the 2003 fishery. Also, a scenario premised on average landings is more risk-prone, because the likelihood of exceeding the projections is greater than under the maximum-based scenarios.

Conversely, using combined maximum landings for all areas might misrepresent the potential fishery in Southern California, which has not caught the available harvest in recent years. For example, combining maximum monthly landings for Southern California results in approximately 64,000 mt annual landings, whereas recent annual landings in this area have not exceeded 49,000 mt. However, without a clear reason it might be inconsistent to use one standard in one area and a different standard in a second area.

In deciding which were the most appropriate scenarios the CPSMT concluded that, generally, the various sardine fisheries would operate in 2003 much the same as in 2002. In the analysis, to provide for possible

fishery expansion, projections for 2003 would be based on 2002 landings plus 10%. Expansion could occur in the Pacific Northwest, because these fisheries have experienced major expansion in recent years and are expected to see continued expansion in 2003. Expansion in California fisheries was premised on squid availability, market increases, decrease in domoic acid and VHS impacts. Thus, two scenarios emerged:

- Scenario I 2002 as a baseline; and
- Scenario II 2002 + 10% to account for potential expansion.

The decision analysis tool was revised to enable comparison of these two scenarios for each of the management alternatives. Three criteria were considered in analyzing the various alternatives. Under the two scenarios, (1) how often did a subarea use up their allocation prior to the reallocation date, resulting in closure of the fishery in that sector, (2) which alternatives are better at ensuring full use of available annual harvest guideline, and (3) what are the impacts (in foregone harvest opportunity relative to the status quo or no action alternative) on the three sectors?

As noted in Section II, the CPSMT started from an initial suite of alternatives proposed by the Council in November 2002. The Council gave discretion to the CPSMT to develop the most appropriate set of alternatives, including development of new alternatives. The narrative below describes how the CPSMT's proposed alternatives evolved from the initial alternatives. For clarity, the alternatives put forward for public review are in bold typeface.

After reviewing several of the initial alternatives under both scenarios it became obvious that impacts under 2002 + 10% would be similar to 2002 baseline conditions. Thus, the analysis focused only on a comparison of the impacts of the various alternatives under a Scenario II status quo (2002 landings + 10%).

The various initial alternatives are presented to demonstrate that a full range of alternatives was analyzed in developing the set of alternatives the CPSMT provided to the Council.

Anticipated impacts for the full range of alternatives are ("full range" equates to the initial set of alternatives as well as variations developed by the CPSMT):

Alternative 1 (status quo) – With a 10% increase in harvest from 2002, the northern subarea would close in late-August. Reallocation (50-50) would occur on October 1, the Monterey fishery would likely reopen, but Oregon and Washington would be shut down the remainder of the year. Approximately 9,847 mt of the coastwide harvest guideline would not be caught by the end of the season.

Alternative 2 (start year with 66-33 allocation, subarea line to 39° N latitude, September [50-50] reallocation, and December [coastwide] reallocation) – With a 10% increase in harvest from 2002, the coastwide fishery closes early in November. This does not impact the Oregon/Washington fishery, which, generally, closes in October due to weather. The fishery would reopen coastwide on December 1, but approximately 3,321 mt of the coastwide harvest guideline would remain at the end of the year. Relative to the status quo, Southern California would forego 3,618 mt and Northern California would gain 35 mt, and Oregon/Washington would gain 10,108 mt.

Alternative 3 (start year with 66-33 allocation, subarea line to 39° N latitude, September [80-20] reallocation, and December [coastwide] reallocation) – With a 10% harvest increase, the Oregon/Washington fishery closes in late-September. Both California fisheries close in late December. All of the coastwide harvest guideline would be harvested. Southern California would forego about 225 mt, Northern California would gain 2,449 mt and Oregon/Washington would gain 7,622 mt.

Alternative 4 (start year with 66-33 allocation, subarea line not changed, September [50-50] reallocation, and December [coastwide] reallocation) – With a 10% increase in harvest, the northern subarea would close in late-August. Reallocation (50-50) would occur on September 1, the Monterey fishery would likely reopen, close again in mid-November, and reopen in December; Oregon and Washington would be shut down the remainder of the year. Approximately 1,482 mt of the coastwide harvest guideline would not be caught by the end of the season. Southern California would realize no change in landings, Northern California would gain 274 mt and Oregon/Washington would gain 8,091 mt.

Alternative 5 (start year with 66-33 allocation, subarea line to 39° N latitude, September coastwide reallocation) – With a 10% increase in harvest from 2002, southern California and northern California fisheries would close in early December, while there would be no early closure for Oregon/Washington. All of the coastwide harvest guideline would be harvested. Southern California would forego about 2,500 mt, Northern California would gain 2,239 mt and Oregon/Washington would gain 10,108 mt.

Alternative 6 (no allocation – coastwide harvest guideline) – With a 10% increase in harvest from 2002 the coastwide fishery closes early in December. This does not impact the Oregon/Washington fishery, which, generally, closes in October due to weather. The coastwide harvest guideline is achieved and, Southern California would forego 2,500 mt, Northern California would gain 2,239 mt and Oregon/Washington would gain 10,108 mt.

Alternative 7 (start year with 50-50 allocation, subarea line to 39° N latitude, September [50-50] reallocation, and December [coastwide] reallocation) – With a 10% harvest increase the impacts are the same as under Alternative 2.

Alternative 8 (start year with 50-50 allocation, subarea line not changed, September [50-50] reallocation, and December [coastwide] reallocation) – With a 10% increase in harvest from 2002 the Northern California and Oregon/Washington fisheries would close in late-October and remain closed in November. The Northern California fishery would likely resume December 1. The Southern California fishery would not close. Approximately 279 mt of the coastwide harvest guideline would remain uncaught. Southern California would gain about 2,501 mt, Northern California would forego 2,692 mt and Oregon/Washington would forego 87 mt.

The Council also requested information on effects of changing the reallocation date to August 1 –

Under 9 (modified to start year with 66-33 allocation, subarea line not changed, **August** [50-50] reallocation, and December [coastwide] reallocation) – With a 10% increase in harvest from 2002 the northern subarea (both Monterey and Oregon/Washington) would close in late-September. Southern California would not close early. Approximately 8,093 mt of the coastwide harvest guideline would not be caught by the end of the season. Southern California would gain about 2,501 mt, Northern California would forego 8,627 mt and Oregon/Washington would forego 1,967 mt.

Given the apparent severe impacts on the Northern California fishery from an August 1 reallocation date, consideration of the August 1 reallocation date within the other alternatives was not considered further.

The CPSMT discussed potential impacts from having no allocation (i.e., a coastwide harvest guideline). There is concern that this could result in a derby fishery, with associated negative consequences. It was also perceived as a very radical change from the current fishery and, hence, not practicable without a comprehensive analysis of impacts.

The CPSMT also noted the 10% estimated increase in landings is a conservative estimate. Oregon and Washington fisheries could easily expand more than 10% in 2003. This would likely accelerate the impacts of the proposed allocation alternatives.

One critical basis of this analysis is the relatively stable harvest guideline. That is, available harvest in 2003 is very similar to what was available in 2002. If available harvest were to decline (e.g., in response to a decrease in sea surface temperature) the predicted impacts noted above would likely not be accurate, but could be predictably more severe.

The CPSMT discussed the practicality of implementing the various alternatives to prevent problems from occurring in 2003. Considerations included controversy (e.g., no allocation) and the need to change regulations mid-season (e.g., harvest guideline already allocated 66-33). The CPSMT concluded:

Alternative 6 (no allocation) is highly controversial.

Alternatives 7 and 8 are not practicable in that they call for a 50-50 initial subarea allocation.

Alternative 9 (notably, the August 1 reallocation) would severely impact the Northern California fishery.

The CPSMT also discussed the idea of establishing a "set aside" at the outset of the fishing season. This amount would be taken off the top of the harvest guideline and held in trust to be used by a sector if they reached their subarea harvest guideline prior to a reallocation date. While this idea may have merits, and be practicable in the future, it did not seem possible for the 2003 season.

Anticipated Impacts in Terms of Producer Surplus and Producer Profits

The economic analysis of alternative allocation schemes used to partition the Pacific sardine harvest guideline estimates the incremental change in producer surplus/private profit (PS) for each fishery sector when comparing each of the proposed allocation alternatives to the status quo. The procedure used estimates both the distributional changes and total changes in PS under each option. Specifically, the year-end projected landings for each fishery sector under each alternative are subtracted from the corresponding projected year-end landings under the status quo. The differences in landings are multiplied by an estimate of PS per metric ton for each fishery sector to obtain estimates of the change in sectorial PS. The sectorial changes in PS are summed to obtain an estimate of the total change in PS associated with the option.

The measures of PS were derived from processor cost and earnings data that were voluntarily provided by industry members. It should be noted that because these data were not collected using a formal statistical sampling design, they may not be represent the expected economic performance of sardine processing operations across each fishery sector. Nonetheless they were considered the best data available and therefore used in the economic analysis of allocation alternatives.

Given that the allocation alternative is to be a short-run, interim measure, it was assumed that there will be no significant changes in the basic operations of sardine processors during its term. There was not expected to be any significant changes in investment, or other restructuring by processors that would alter the costs of operations during the period of the selected action. Under these circumstances, all but the variable costs of sardine processing (in particular, the costs of labor, energy/utilities, raw fish, and other inputs that vary directly with the quantities of sardines processed) were considered fixed over the time horizon of the action, and therefore, would not effect estimates of PS (i.e., only the, variable costs of processing sardines were used in the calculations of PS). Producer surplus was calculated as the difference between gross revenue from the sales of processed sardine products, and the total variable cost of producing those products. This aggregate estimate was divided by the total quantity of processed product sold to get a weighted average, per unit measure of PS which was then used to estimate the incremental changes in PS associated with the proposed allocation alternatives.

It was assumed that each of the inputs are traded in perfectly competitive markets, and, therefore, their private cost will be equal to their social opportunity cost. Under this assumption, there will be no difference in measures of producer surplus and private profit. In other words the profits realized from sardine processing are the same as the net benefits to the nation. Estimates of the incremental changes in PS relative to the status quo were positive for each of the allocation alternatives (Table 4-1).

Table 4-2 summarizes the impacts of the five sardine allocation alternatives selected by the Council for public review.

Table 4-1. Estimated economic impacts, changes in producer surplus and private profit (PS),¹ of proposed West Coast sardine harvest guideline reallocation options (2001 \$).

	Regional Impact			Total
	Southern CA	Northern CA	OR & WA	
Alternative 1: STATUS QUO (2002 Landings + 10%, 66/33, Pt. Piedras Blancas, Re-all Oct 1)				
Projected Landings (MT)	53,856	14,060	33,145	101,061
PS Per Ton	\$134.40	\$130.26	\$205.64	
Total PS	\$7,238,050	\$1,831,481	\$6,815,794	\$15,885,326
Alternative 2: (66/33, Pt. Arena, Re-all Sep 1, Coastwide Dec 1)				
Projected Landings (MT)	50,239	14,095	43,253	107,587
Change from Status Quo	-3,618	35	10,108	6,526
Change in PS	-\$486,175	\$4,624	\$2,078,460	\$1,596,909
Alternative 3: (66/33, Pt. Arena, Re-all 80/20 Sep 1, Coastwide Dec 1)				
Projected Landings (MT)	53,631	16,508	40,767	110,907
Change from Status Quo	-225	2,449	7,622	9,846
Change in PS	-\$30,239	\$318,951	\$1,567,441	\$1,856,152
Alternative 4: (66/33, Pt. Piedras Blancas, Re-all Sep 1, Coastwide Dec 1)				
Projected Landings (MT)	53,856	14,334	41,236	109,426
Change from Status Quo	0	274	8,091	8,365
Change in PS	\$0	\$35,692	\$1,663,693	\$1,699,385
Alternative 5: (66/33, Pt. Arena, Coastwide Sep 1)				
Projected Landings (MT)	51,356	16,299	43,253	110,908
Change from Status Quo	-2,500	2,239	10,108	9,847
Change in PS	-\$336,022	\$291,693	\$2,078,460	\$2,034,131
Alternative 6: (No allocation, HG available coastwide all year)				
Projected Landings (MT)	51,356	16,299	43,253	110,908
Change from Status Quo	-2,500	2,239	10,108	9,847
Change in PS	-\$336,022	\$291,693	\$2,078,460	\$2,034,131
Alternative 7: (50/50, Pt. Arena, Re-all Sep 1, Coastwide Dec 1)				
Projected Landings (MT)	50,239	14,095	43,253	107,587
Change from Status Quo	-3,618	35	10,108	6,526
Change in PS	-\$486,175	\$4,624	\$2,078,460	\$1,596,909
Alternative 8: (50/50, Pt. Piedras Blancas, Re-all Sep 1, Coastwide Dec 1)				
Projected Landings (MT)	53,856	13,607	43,166	110,629
Change from Status Quo	0	-453	10,021	9,568
Change in PS	\$0	-\$58,960	\$2,060,570	\$2,001,609
Alternative 9: (66/33, Pt. Piedras Blancas, Re-all Aug 1, Coastwide Dec 1)				
Projected Landings (MT)	53,856	7,672	41,286	102,815
Change from Status Quo	0	-6,387	8,141	1,754
Change in PS	\$0	-\$32,052	\$1,674,141	\$842,089

¹It was assumed that each of the variable inputs used in sardine processing are traded in perfectly competitive markets, and, therefore, their private cost will be equal to their social opportunity cost. Under this assumption, there will be no difference in measures of producer surplus and private profit.

Table 4-2. Summary of options for restructuring the 2003 sardine allocation framework.

Alternative		Early Closure	Early Closure	Early Closure	Change in Utilization	Change in Utilization	Change in Utilization	Harvest Guideline Remaining	Change in Producer Surplus (2001 \$)	Doable in 2003
		S. CA	N. CA	OR/WA	(MT) S. CA	(MT) N. CA	(MT) OR/WA	(MT)		
Alternative 1	Status Quo: 110% of 2002 monthly landings for each fishery sector; harvest guideline=110,908 mt; initial allocation 66% south, 33% north (66:33); line at Pt. Piedras Blancas; 50:50 reallocation Oct. 1.	No	Yes - closes in late August, reopens in October	Yes - closes in late August, through end of year	0	0	0	9,847	\$0	Yes
Alternative 2	110% of 2002 monthly landings for each fishery sector; harvest guideline=110,908 mt; initial allocation 66% south, 33% north (66:33); line at Pt. Arena; 50:50 reallocation Sep. 1; coastwide reallocation Dec. 1.	Yes - closes in early November, reopens in December	Yes - closes in early November, reopens in December	No	-3,618	35	10,108	3,321	\$1,596,909	Yes
Alternative 3	110% of 2002 monthly landings for each fishery sector; harvest guideline=110,908 mt; initial allocation 66% south, 33% north (66:33); line at Pt. Arena; 80:20 reallocation Sep. 1; coastwide reallocation Dec. 1.	Yes - closes in late December	Yes - closes in late December	Yes - closes in late September for remainder of year	-225	2,449	7,622	0	\$1,856,152	Yes
Alternative 4	110% of 2002 monthly landings for each fishery sector; harvest guideline=110,908 mt; initial allocation 66% south, 33% north (66:33); line at Pt. Piedras Blancas; 50:50 reallocation Sep. 1; coastwide reallocation Dec. 1.	No	Yes - closes in late August, reopens in September, closes again in November, reopens in December	Yes - closes in late August, reopens in September, closes at end of season in October	0	274	8,091	1,482	\$1,699,385	Yes
Alternative 5	110% of 2002 monthly landings for each fishery sector; harvest guideline=110,908 mt; initial allocation 66% south, 33% north (66:33); line at Pt. Arena; coastwide reallocation Sep. 1.	Yes - closes in early December	Yes - closes in early December	No	-2,500	2,239	10,108	0	\$2,034,131	Yes

COASTAL PELAGIC SPECIES ADVISORY SUBPANEL REPORT ON
APPROVE FINAL REGULATORY AMENDMENT AND ANALYSIS FOR CHANGES
TO THE SARDINE ALLOCATION

The majority of the Coastal Pelagic Species Advisory Subpanel (CPSAS) (5 of 9 and one abstention) recommend the Council endorse Option 4 as the preferred alternative for interim management of the sardine fishery.

A minority of the CPSAS (4 of 9 and one abstention) continues to recommend the majority recommendation made to the Council at the March 2003 meeting, which endorses Option 3 as the preferred alternative for interim management of the sardine fishery.

A majority of the CPSAS (5 of 7 and 3 abstentions) recommend the Council review in November whatever interim management measure implemented during 2003, and if necessary, revisit the interim allocation scheme for the 2004 season.

PFMC
04/10/03

Projected monthly sardine landings under the five allocation alternatives

ALTERNATIVE 1

STATUS QUO (66/33, Pt. Piedras Blancas, Re-all 50:50 Oct 1)

2002 Landings + 10%

Month	REGION LANDINGS			SUBAREA LANDINGS	
	SC 2002	NC 2002	OW 2002	South	North
Jan	5,250	249	0	5,250	249
Feb	8,435	1,232	0	8,435	1,232
Mar	6,990	178	0	6,990	178
Apr	5,658	71	0	5,658	71
May	2,257	1	0	2,257	1
Jun	692	1	3,450	692	3,451
Jul	3,322	362	13,329	3,322	13,691
Aug	4,875	2,934	15,163	4,875	18,097
Sep	4,473	0	0	4,473	0
Oct	4,190	6,188	1,204	4,190	7,392
Nov	3,674	2,473	0	3,674	2,473
Dec	4,039	371	0	4,039	371
Total	53,856	14,060	33,145	53,856	47,205
Status Quo	53,856	14,060	33,145		101,061
Impact	0	0	0		101,061

U.S. HG= 110,908

Subarea HG= 73,939 36,969

ALLOCAVAILABLE (Month Start)

	South	North
Jan	73,939	36,969
Feb	68,689	36,721
Mar	60,254	35,489
Apr	53,264	35,311
May	47,605	35,239
Jun	45,348	35,238
Jul	44,656	31,788
Aug	41,334	18,097
Sep	36,459	0
Oct	15,993	15,993
Nov	11,803	8,601
Dec	8,129	6,128
Total	4,090	5,757

HG remaining Sep 30: South 18,097, North 0
 <-----Reallocate 50:50 on Oct 1: South 31,986, North 0

ALTERNATIVE 2

(66/33, Pt. Arena, Re-all 50:50 Sep 1, Coastwide Dec 1)

2002 Landings + 10%

Month	REGION LANDINGS			SUBAREA LANDINGS	
	SC 2002	NC 2002	OW 2002	South	North
Jan	5,250	249	0	5,498	0
Feb	8,435	1,232	0	9,668	0
Mar	6,990	178	0	7,168	0
Apr	5,658	71	0	5,730	0
May	2,257	1	0	2,258	0
Jun	692	1	3,450	693	3,450
Jul	3,322	362	13,329	3,684	13,329
Aug	4,875	3,324	17,179	8,199	17,179
Sep	4,473	2,079	8,091	6,552	8,091
Oct	4,190	6,188	1,204	10,378	1,204
Nov	57	39	0	96	0
Dec	4,039	371	0	4,410	0
Total	50,239	14,095	43,253	64,334	43,253
Status Quo	53,856	14,060	33,145		101,061
Impact	-3,618	35	10,108		

U.S. HG= 110,908

Subarea HG= 73,939 36,969

ALLOCAVAILABLE (Month Start)

	South	North
Jan	73,939	36,969
Feb	68,440	36,969
Mar	58,773	36,969
Apr	51,605	36,969
May	45,875	36,969
Jun	43,617	36,969
Jul	42,924	33,520
Aug	39,240	20,191
Sep	17,026	17,026
Oct	10,474	8,935
Nov	96	7,731
Dec	7,731	<----- Open coastwide Dec 1
Total	3,321	<----- HG Remaining Season End

South 31,041, North 3,012
 <----- Reallocate 50:50 on Sep 1: South 17,026, North 17,026

Projected monthly sardine landings under the five allocation alternatives

ALTERNATIVE 3

(66/33, Pt. Arena, Re-all 80/20 Sep 1, Coastwide Dec 1)

2002 Landings + 10%

Month	REGION LANDINGS			SUBAREA LANDINGS	
	SC 2002	NC 2002	OW 2002	South	North
Jan	5,250	249	0	5,498	0
Feb	8,435	1,232	0	9,668	0
Mar	6,990	178	0	7,168	0
Apr	5,658	71	0	5,730	0
May	2,257	1	0	2,258	0
Jun	692	1	3,450	693	3,450
Jul	3,322	362	13,329	3,684	13,329
Aug	4,875	3,324	17,179	8,199	17,179
Sep	4,473	2,079	6,810	6,552	6,810
Oct	4,190	6,188	0	10,378	0
Nov	3,674	2,473	0	6,147	0
Dec	3,814	350	0	4,164	0
Total	53,631	16,508	40,767	70,140	40,767
Status Quo	53,856	14,060	33,145		101,061
Impact	-225	2,449	7,622		

U.S. HG= 110,908

Subarea HG= 73,939 36,969

ALLOCA AVAILABLE (Month Start)

	South	North
Jan	73,939	36,969
Feb	68,440	36,969
Mar	58,773	36,969
Apr	51,605	36,969
May	45,875	36,969
Jun	43,617	36,969
Jul	42,924	33,520
Aug	39,240	20,191
Sep	27,242	6,810
Oct	20,690	0
Nov	10,312	0
Dec	4,165	1

3,012 <--- HG remaining Aug 31
 31,041 <--- reallocate 80:20 Sep 1
 4,164 0 <--- HG remaining Nov 30
 <--- Open coastwide Dec 1
 <--- HG Remaining Season End

ALTERNATIVE 4

(66/33, Pt. Piedras Blancas, Re-all Sep 1, Coastwide Dec 1)

2002 Landings + 10%

Month	REGION LANDINGS			SUBAREA LANDINGS	
	SC 2002	NC 2002	OW 2002	South	North
Jan	5,250	249	0	5,250	249
Feb	8,435	1,232	0	8,435	1,232
Mar	6,990	178	0	6,990	178
Apr	5,658	71	0	5,658	71
May	2,257	1	0	2,257	1
Jun	692	1	3,450	692	3,451
Jul	3,322	362	13,329	3,322	13,691
Aug	4,875	2,934	15,162	4,875	18,097
Sep	4,473	2,079	8,091	4,473	10,170
Oct	4,190	6,188	1,204	4,190	7,392
Nov	3,674	668	0	3,674	668
Dec	4,039	371	0	4,039	371
Total	53,856	14,334	41,236	53,856	55,569
Status Quo	53,856	14,060	33,145		101,061
Impact	0	274	8,091		

U.S. HG= 110,908

Initial Subarea HG= 73,939 36,969

ALLOCA AVAILABLE (Month Start)

	South	North
Jan	73,939	36,969
Feb	68,689	36,721
Mar	60,254	35,489
Apr	53,264	35,311
May	47,605	35,239
Jun	45,348	35,238
Jul	44,656	31,788
Aug	41,334	18,097
Sep	18,230	18,230
Oct	13,757	8,060
Nov	9,566	668
Dec	5,892	1,482

36,459 0 <--- HG remaining Aug 31
 18,230 <--- Reallocate 50:50 on Sep 1
 5,892 0 <--- HG remaining Nov 30
 <--- Open coastwide Dec 1
 <--- HG Remaining Season End

Projected monthly sardine landings under the five allocation alternatives

ALTERNATIVE 5

(66/33, Pt. Arena, Coastwide Sep 1)

2002 Landings + 10%

Month	REGION LANDINGS		
	SC 2002	NC 2002	OW 2002
Jan	5,250	249	0
Feb	8,435	1,232	0
Mar	6,990	178	0
Apr	5,658	71	0
May	2,257	1	0
Jun	692	1	3,450
Jul	3,322	362	13,329
Aug	4,875	3,324	17,179
Sep	4,473	2,079	8,091
Oct	4,190	6,188	1,204
Nov	3,674	2,473	0
Dec	1,539	141	0
Total	51,356	16,299	43,253
Status Quo	53,856	14,060	33,145
Impact	-2,500	2,239	10,108

	SUBAREA LANDINGS	
	South	North
Jan	5,498	0
Feb	9,668	0
Mar	7,168	0
Apr	5,730	0
May	2,258	0
Jun	693	3,450
Jul	3,684	13,329
Aug	8,199	17,179
Sep	6,552	8,091
Oct	10,378	1,204
Nov	6,147	0
Dec	1,679	0
Total	67,655	43,253

	ALLOC AVAILABLE (Month Start)	
	South	North
Jan	73,939	36,969
Feb	68,440	36,969
Mar	58,773	36,969
Apr	51,605	36,969
May	45,875	36,969
Jun	43,617	36,969
Jul	42,924	33,520
Aug	39,240	20,191
Sep	34,052	
Oct	19,409	
Nov	7,827	
Dec	1,680	
Total	0	

U.S. HG= 110,908

Subarea HG= 73,939 36,969

South 31,041 <---- HG remaining Aug 31

<---- Open coastwide Sep 1

<---- HG remaining Nov 30

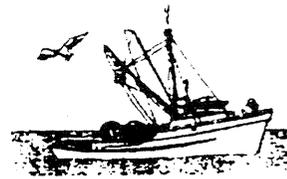
<---- HG Remaining Season End

Annual sardine landings (metric tons) by fishing sector.

YEAR	So. CA	No. CA	OR-WA
1995	34,645	5,681	0
1996	24,565	7,988	0
1997	29,885	13,360	0
1998	32,462	10,493	0
1999	42,017	17,246	776
2000	42,297	11,367	14,320
2001	44,709	7,103	23,907
2002	48,960	14,078	37,923

PFMC
04/10/03

PAGE 1 OF 3

MARCUS FOOD CO.FISHERIES DIVISION
1532 SAUSALITO DR.
CAMARILLO, CA. 93010"CAPTAIN'S CATCH"
"CAPTAIN'S MATE"Exhibit G.2.c
Public Comment
April 2003

PHONE: 805-383-2041

DATE: Mar 21, 2003

FAX: 805-383-4152

EMAIL: squid.station@gte.net

Dr. Hans Radtke, Chair, Dr. Donald McIsaac
Executive Director, and Members of the Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Ore. 97220

RECEIVED

MAR 21 2003

SUBJECT: Allocation of the Sardine Resource

PFMC

Dear Dr. McIsaac:

My name is Richard (Rick) Mayer. Together with my friend and long time associate Mr Pete Guglielmo of Southern Cal Seafoods, Inc., and relying on an ongoing financing arrangement that I arranged with Marcus Food Co., Inc. (the company that I am associated with), we have built a fisheries based business that relies heavily on Pacific sardines as a core product. Since the opening of the first sardine catch quota more than a decade ago, Pete Guglielmo and I have worked to develop a sardine program as a core component of the total business. That program has grown steadily over the years and has been based on a "value added" and high quality approach. That approach is now paying dividends as our sardine business continues to grow. Recently, Japan has needed to import more and more sardines due to poor domestic sardine landings there. This has allowed us to expand our value added sardine business dramatically in the past 3-4 years. We, (Southern Cal Seafood/Marcus Food Co. Fisheries Div.) now produce and market a variety of sardine products including: Whole Size Graded Sardines in a variety of pack styles, Dressed Sardines (HGT and H&G) in a variety of pack styles, along with the "ocean run" bulk commodity type sardines that have been traditionally packed for more commodity oriented sardine markets. We ship sardines to destinations all over the world including: Japan, Australia, Malaysia, China, Philippines, Panama, Tahiti, W. Samoa, Fiji, New Zealand, Micronesia, USA, and Canada.

In years prior to having substantial sardine catch quota available, (and until we developed our current sardine programs), we relied almost exclusively on Loligo squid catches for our business. The seasonality in the availability of squid in most years made it so that we operated and had product available to sell only about 6-7 months per year. We remained essentially shut down the rest of the year. During "normal" years this was not good but was not a complete disaster if squid landings had been good. However, during El Nino years when little if any squid was available it was devastating financially to all involved with this fisheries business (ie. Southern Cal Seafood, Marcus Food Co. Fisheries Div., the boats that fish for the operation, the truckers that haul the fresh catches from the port to the plant, the cold storage that blast freezes our product, and the workers that work at the plant). After substantial capital investment and improvements to our sardine program, the sardine business we have generated allows us to operate virtually year round; (even during El Nino years when the boats fishing for us would have been tied up to the dock, and the plant sitting idle without the sardine business). A good example of what this sardine business now means to our (Southern Cal Seafoods/Marcus Food Co. Fisheries Div.'s) overall business, and to our workers, truckers, cold storage, and the fishermen that fish for us, is the fact that hourly worker payrolls during recent months have been \$25,000 to \$35,000 per week; this during an El Nino year when normally we might have laid off all hourly workers due to lack of squid landings.

We and other California based packers rely on the sardine fishery. After having zero sardine catch quota a little more than a decade ago and then being allowed slowly but steadily increasing catch quotas (which have enabled us to grow and develop the sardine marketing programs that are now in place), we realize the importance of conserving this resource. The move that is afoot now to try to persuade a reallocation of catch quota quantities so that the Oregon and Washington sardine processors can expand further is flat WRONG to do without a) the appropriate scientific data to back up that decision, and b). proof that the decision will not have a significant economic impact on the established California limited entry sardine industry.

PAGE 2 OF 3

1). CPS FMP did not intend to restrict the federally permitted limited entry fishery in Ca. for the purpose of encouraging expansion in the new/emerging Ore./Wa. sardine fishery. To allow further expansion of the Ore./Wa. sardine fishery at this time will almost surely be at the expense of our California fishermen, truckers, processors, cold storage facilities, and workers that rely on this resource here in California. This is not equitable. Further, the best quality sardines are generally caught during the period June/July through Feb/Mar. Our southern region sardine industry needs to maintain access to sardines during that critical period when the sardines are most marketable as a value added/higher value product. Proposals now advanced by the new northern fishery interests could result in closure of our fishery during the height of our high value sardine harvest period. This is inequitable !

2). There is substantial evidence that the sardine resource is cyclical and like many other things in nature, goes through cycles of relative abundance and then relative scarcity. This is true both of the overall bioresource, but also true about the abundance/scarcity of the resource at any given location at any specific time. To allow Ore./Wa. to further expand and add additional infrastructure to that fishery without sound scientific research to back up both the sustainability of taking even the currently permitted catch quantities from those waters, and, the effects of taking those quantities of large/mature sardines on the overall sardine bioresource along the Canada/USA/Mexico Pacific coastal region might well result in drastic effects to the overall sardine resource. Further, there is some evidence to suggest that further expansion of the Ore./Wa. fishery might even result in greater hardship (long term) for Ore./Wa. fishermen, packers, and related infrastructure in future years if and when the fish schools that they are fishing now migrate back southward. (There is evidence that this migration might be already starting).

Note:

a). When the first sardine catch quota quantities were allowed after the sardine fishery in California had been shut down for many years, the average size of the sardines in the catches we landed in waters off Ventura/Santa Barbara counties for the first few years was 150-170 gms. (fish were 120-200gms size fish; - very similar to what is being landed now in the Or./Wa.). As waters warmed it seems likely that these large size sardines migrated northward and for the past several years have been concentrated off the Ore./Wa. coast.

b). The very strong (strongest ever recorded) 1997-1998 El Nino might have helped to temporarily push and keep these large size sardines in Ore./Wa. waters.

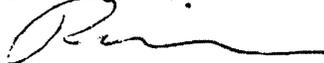
c). The large size sardines that have been the basis of the Ore./Wa. fishery might very well start to gradually decline in abundance or even disappear completely due to migration back southward. Increasing the harvest of these fecund sardines at the beginning of a natural decline could hasten the decline. This could result in a total collapse of the Ore./Wa. sardine fishery, resulting in huge economic loss to those involved.

3). It has been argued that Southern California did not catch all of it's available quota in recent years as justification for shifting quota northward. This has also been mostly a function of the cyclical nature of the Sardine resource; in this case with relation to the size sardines found during those years in Southern region waters. During the more than a decade that we have been fishing Sardines in the Southern Region, we have seen sardines go from 150-170gms avg. the first few years, then decline to as low as 30-50gms size, and now appear to be once again steadily increasing in size with ever increasing % of sardines mixed in the catches that are 90gms/up. During years when the available Southern region quota was not entirely used up I can confirm that this was largely because we as an industry elected not to target on these small size sardines but instead decided it was better to allow them to continue to grow up, hopefully spawn, (adding to the future total resource), while at the same time becoming more suitable for use in our value added sardine programs at a future date.

PAGE 3 OF 3

The bottom line is that the arguments put forth by the Ore./Wa. sardine fishery interests about a). the economic hardship they have suffered through, and b). the fact that Southern California did not harvest all it's available quota in recent years, as justification to reallocate catch quota northwards should not be allowed to sway decisions about this resource. For the health and sustainability of the overall resource coast wide, those decisions should only be made after careful scientific study. Since the necessary scientific research has not yet been done, we would urge that nothing be changed with regards to reallocation of the sardine catch quota until research has been done that proves that this would not adversely affect the California Sardine industry, and/or the sustainability of the overall sardine resource up and down the Pacific Canada/USA/Mexico coast.

Best Regards,



Rick Mayer

Pres./Gen. Mgr.

Marcus Food Co. Fisheries Div.

Mar 21, 2003

PACIFIC COAST FEDERATION
of FISHERMEN'S ASSOCIATIONS

Baravano
dent
David Biris
Vice-President
Tom Hart
Secretary
Robert Miller
Treasurer
In Memoriam:
Nathaniel S. Bingham
Harold C. Christensen

W.F. "Zeke" Grader, Jr.
Executive Director
Glen H. Spren
Northwest Regional Director
Mitch Farris
Fishery Enhancement Director
Steven Holm
Watershed Conservation Director
Duncan MacLean
Salmon Advisor

www.pcffa.org

Please Respond to:
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Office of the President
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Half Moon Bay, CA 94019
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Fax: (650) 726-1607

Northwest Office
P.O. Box 11170
Eugene, OR 97440-3370
Tel: (541) 689-2000
Fax: (541) 689-2500

21 March 2003

Dr. Hans Radtke, Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

RECEIVED

MAR 21 2003

PFMC

RE: Sardine Fishery

Dear Chairman Radtke and Members of the Pacific Council:

The Pacific Coast Federation of Fishermen's Associations (PCFFA) represents working men and women in the west coast commercial fishing fleet. Among PCFFA's members are individual fishermen engaged in the fishery for sardine. PCFFA is currently concerned with the sardine fishery, managed pursuant to the PFMC's Coastal Pelagic Species FMP, with regard to proposed allocation schemes that could harm the traditional sardine fishery in California. It is apparent to us the CPS FMP did not consider the Oregon-Washington sardine fishery would expand as rapidly as it has in such a short time. With the expansion of the fishery in the Pacific Northwest, we do not believe, however, it was the intent of the FMP to restrict the federally authorized limited-entry fishery in California to provide more fish to the emerging fishery elsewhere. That begs the question: why have limited entry?

Although your management team noted the proposed reallocation to the Pacific Northwest is a short-term fix without a resource sustainability concern, there is no way to measure the impact of reallocation in the short term. We believe it is important to consider the big picture - sardines are a cyclical resource. The point to remember is we're operating on a declining quota. Continued declines in water temperature will drop the harvest rate to 5 percent. That could happen next year. The ocean signals all point to a regime shift, unfavorable to sardines.

It is critical, therefore, the Council consider the importance of sardines to California - both to Monterey and southern California. We support a short-term fix, but we point out that if the fix changes the allocation percentage, it could set a precedent that will be very hard to undo. We recommend Alternative 4, moving up the reallocation date one month to 1 September. This is the simplest way to offset potential impacts to the fishery in the short term. This parallels the emergency action taken by NMFS last year. If a 1 September reallocation had occurred last year, the northern fishery would not have been closed.

Dr. Hans Radtke
21 March 2003
Page Two

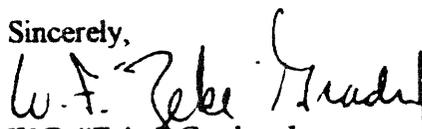
While Alternative 3 appears to have a minor impact on California, it makes a major change – a *de facto* increase in the allocation percentage to the Northwest fishery in the absence of research. This would cause economic hardship to the federally permitted limited entry fishery and California fishing communities by closing the state's fishery during the peak fall-winter fishing season, and the hardship will increase if the quota is cut next year.

The sardine resource is subject to dramatic change and fishermen see signs that change is happening. California's wetfish industry has paid a high price for sardine recovery. We urge the Council to approach reallocation decisions with caution. U.S. Senator Dianne Feinstein and Congressional representatives from all of California's fishing ports are also asking the Council to consider the importance of sardines to California and obtain the necessary information about this resource before approving further expansion of a new Oregon and Washington fishery.

Monterey fishermen, California fishermen support Alternative 4 – do not make a radical change in the allocation formula until research provides answers about the northern sardine resource.

Thank you for your consideration of our concerns.

Sincerely,


W.F. "Zeke" Grader, Jr.
Executive Director

cc: The Honorable Dianne Feinstein
The Honorable Sam Farr
Dr. Donald McIsaac, Executive Director, Pacific Fishery Management Council

MAR 21 2003

PFMC

EXHIBIT G.2.C.
PUBLIC COMMENT
APRIL 10, 2003

CALIFORNIA WETFISH PRODUCERS ASSOCIATION

**2194 SIGNAL PLACE
SAN PEDRO, CA 90731**

APRIL 10, 2003

ORLANDO AMOROSO
S.CA. COMMERCIAL
FISHING ASSOC.

DR. HANS RADTKE, CHAIR, DR. DON MCISAAC, EXECUTIVE DIRECTOR AND
MEMBERS OF THE PACIFIC FISHERY MANAGEMENT COUNCIL
7700 NE AMBASSADOR PLACE, SUITE 200
PORTLAND, OR 97220

VANESSA DELUCA
STATE FISH
COMPANY

SUBJECT: SUMMARY COMMENTS ON REALLOCATION OF THE SARDINE RESOURCE

JOHN CAR
TRH-MARINE FISH CO.

DEAR DR. RADTKE, DR. MCISAAC AND COUNCIL MEMBERS,

PETE GUGLIELMO
SOUTHERN CA
SEAFOOD

THESE SUMMARY COMMENTS ARE SUBMITTED BY THE CALIFORNIA WETFISH PRODUCERS
ASSOCIATION ON BEHALF OF THE SAN PEDRO PURSE SEINE FLEET - 29 VESSEL OWNERS WHO
EMPLOY APPROX. 232 FISHERMEN - AND THE MAJORITY OF SARDINE PROCESSORS IN
SOUTHERN CALIFORNIA, WHO EMPLOY IN AGGREGATE 1,370 PEOPLE. WE AGAIN EMPHASIZE
THAT SARDINES ARE THE "BREAD AND BUTTER" STAPLE IN THESE FISHING COMMUNITIES, AS
WELL AS IN MONTEREY.

FRANK TOMICH
TOMICH BROS.
SEAFOOD

IN EARLIER TESTIMONY WE HAVE EXPRESSED CONCERN OVER, AND THE COUNCIL HAS ALSO
ACKNOWLEDGED, THE GREAT UNCERTAINTIES AND LACK OF KNOWLEDGE OF THE COAST-WIDE
SARDINE RESOURCE, AND THE MANY ASSUMPTIONS MADE IN EXTRAPOLATED BIOMASS
ESTIMATES AND HARVEST GUIDELINES UNDERLYING CURRENT MANAGEMENT POLICIES.

PETER DIVONA
CRS / STANDARD
SEAFOOD

WE HAVE ALSO HIGHLIGHTED THE IMPORTANCE OF THE SARDINE FISHERY, BOTH CULTURALLY
AND ECONOMICALLY, TO THE STATE OF CALIFORNIA AND OUR LOCAL COMMUNITIES. THE
COUNCIL HAS RECEIVED SIMILAR COMMENTS FROM SENATOR DIANNE FEINSTEIN AND
CALIFORNIA CONGRESSIONAL REPRESENTATIVES FROM OUR MAJOR FISHING PORTS AND
OTHERS WHO SUPPORT OUR LOCAL FISHING FLEETS.

JOE BURCH
OCEAN GEM
SEAFOOD

ALTHOUGH ATTEMPTS HAVE BEEN MADE BY PACIFIC NORTHWEST INTERESTS TO DIMINISH THE
SIGNIFICANCE OF CALIFORNIA'S FISHERY, AND TO DISCREDIT THE COMMENTS OF THE
CALIFORNIA DELEGATION AS NOT REPRESENTATIVE OF MONTEREY, WE ARE IN
COMMUNICATION WITH SARDINE FISHERMEN AND PROCESSORS IN MONTEREY AND THE VAST
MAJORITY OF THEM, AS WELL AS WE, SUPPORT THE SAME MESSAGE EXPRESSED BY
CALIFORNIA'S CONGRESSIONAL REPRESENTATIVES. I QUOTE FROM SENATOR FEINSTEIN'S
LETTER DATED MARCH 10, 2003:

MIKE CARPENTER
SUN COAST
CALAMARI

"I AM WRITING TO ASK THE PACIFIC FISHERY MANAGEMENT COUNCIL TO CONDUCT THOROUGH
RESEARCH ON CURRENT FISH STOCKS AND USE CAUTION BEFORE AUTHORIZING FURTHER
EXPANSION OF THE SARDINE FISHERY IN THE PACIFIC NORTHWEST..."

JOHN GINGERICH
HUENEME FISH
PROCESSORS INC.

THE CPS FMP DID NOT CONSIDER THAT AN "OPEN ACCESS" FISHERY IN THE PACIFIC
NORTHWEST WOULD EMERGE AND EXPAND AS RAPIDLY AS HAS OCCURRED. THIS EXPANSION
TOOK PLACE IN THE ABSENCE OF FEDERAL OVERSIGHT. ALTHOUGH THE FINAL RULE
PROVIDED FOR AN "OPEN ACCESS" FISHERY TO HARVEST STOCKS NORTH OF PT. ARENA IN
TIMES OF SARDINE ABUNDANCE, THE FMP CLEARLY DID NOT INTEND TO RESTRICT OR CURTAIL
THE FEDERALLY PERMITTED, LIMITED ENTRY FISHERY ESTABLISHED IN CALIFORNIA TO
ENCOURAGE FURTHER EXPANSION OF THE NEW FISHERY IN THE PNW.

.....

REPRESENTING
29 PURSE SEINE
VESSEL OWNERS
WHO EMPLOY
232 FISHERMEN
AND
8 COMPANIES WITH
1,370 EMPLOYEES

NOW OCEANIC CONDITIONS SIGNAL THE BEGINNING OF A SHIFT TO A COLD-WATER REGIME
UNFAVORABLE TO SARDINES. SCIENTISTS REPORT A DECLINE IN REPRODUCTIVITY AT BOTH
ENDS OF THE RANGE. THE HARVEST GUIDELINE HAS DECLINED FOR THE PAST THREE YEARS
RUNNING, AND WILL DROP SIGNIFICANTLY LOWER WHEN CONTINUED COLD WATER
TEMPERATURE CAUSES THE HARVEST RATE TO DROP TO 5 PERCENT. THIS IS A TIME FOR
PRECAUTION, NOT EXPANSION.

DR. HANS RADKE & COUNCIL MEMBERS
ALLOCATION OF THE SARDINE RESOURCE

4/10/03

PAGE 2

MOREOVER, OF CRITICAL IMPORTANCE, AND AS WE TESTIFIED IN OUR MARCH 2003 STATEMENT, THE CURRENT HARVEST GUIDELINE (OPTIMUM YIELD) DOES NOT ACCOUNT FOR FISHING ACTIVITY IN CANADA OR EXPANSION OF ACTIVITY IN MEXICO: CANADA HAS ANNOUNCED A 5,000 MT HARVEST THIS YEAR. MEXICO ANNOUNCED PLANS TO HARVEST A TOTAL 40,000 TONS OF SARDINE IN 2003, WHILE THE HARVEST FORMULA PROVIDES FOR ONLY 16,500 MT. BASED ON THE CURRENT STOCK ASSESSMENT AND HARVEST GUIDELINE, IF THE US FISHERY ACHIEVES OY THIS YEAR THE COAST-WIDE HARVEST WILL EXCEED THE ACCEPTED BIOLOGICAL CATCH: THIS IS DEFINED AS OVER-FISHING.

IT IS IMPORTANT TO CONSIDER THE BIG PICTURE: SARDINES ARE A CYCLIC RESOURCE LIKELY ENTERING A NATURAL DECLINE. ENCOURAGING INCREASED HARVEST IN A NEW FISHERY TARGETING THE LARGEST SPAWNING STOCKS AT THIS PERIOD IN THE CYCLE, IN THE ABSENCE OF RESEARCH ON THE RELATIONSHIP OF THOSE STOCKS TO THE SPAWNING BIOMASS, RISKS HARMING THE RESOURCE IN ADDITION TO DEVASTATING THE TRADITIONAL SARDINE INDUSTRY IN CALIFORNIA. CONSIDERING ANNOUNCED HARVEST ACTIVITY BEYOND OUR BORDERS, THERE IS NO ROOM FOR FURTHER EXPANSION IN THE SARDINE FISHERY.

PLEASE CONSIDER THAT THE ALLOCATION DECISION THE COUNCIL MAKES, EVEN FOR THE SHORT TERM, SETS A PRECEDENT. THE POLICY ADOPTED WILL ALSO GOVERN THE FISHERY IN 2004, AND CONSIDERING THE POSTPONEMENT OF THE STAR PANEL TO SPRING 2004, THIS SHORT-TERM FIX WILL ALSO APPLY TO THE 2005 FISHERY. THAT'S NOT ONE YEAR BUT THREE! THE MANAGEMENT TEAM ACKNOWLEDGES THERE IS NO WAY TO MEASURE THE IMPACT OF REALLOCATION SHORT TERM. BUT IF THE COUNCIL APPROVES A SHORT-TERM FIX THAT MOVES THE ALLOCATION LINE NORTH TO POINT ARENA, THAT WILL RESULT IN A SIGNIFICANT DE-FACTO INCREASE IN ALLOCATION TO THE PACIFIC NORTHWEST, ENCOURAGE FURTHER PRESSURE ON THE SPAWNING STOCKS IN THE PACIFIC NORTHWEST AND POSSIBLY HASTEN THE DECLINE OF THE SARDINE RESOURCE. MOREOVER, THIS EXPANSION WILL COME AT THE SHORT AND LONG-TERM SEVERE ECONOMIC HARDSHIP OF THE LIMITED-ENTRY CALIFORNIA FISHERY BY CLOSING THE FISHERY DURING ITS PEAK SEASON.

AGAIN WE POINT OUT, CALIFORNIA OPERATES UNDER A FEDERALLY PERMITTED, LIMITED ENTRY FISHERY WITH A CAPACITY GOAL. ONLY 67 BOATS ARE LICENSED TO FISH. IN EARLIER COUNCIL MEETINGS WE HEARD TESTIMONY THAT THE EMERGING FISHERY IN THE PACIFIC NORTHWEST DOES NOT WANT TO HURT THE CALIFORNIA FISHERY, YET THEY ASK THE COUNCIL TO APPROVE A REALLOCATION PLAN THAT COULD SHUT DOWN CALIFORNIA'S LIMITED ENTRY FISHERY DURING PEAK SEASON IN NOVEMBER AND DECEMBER SO THE EMERGING FISHERY CAN HARVEST MORE FISH IN THE SUMMERTIME? THAT'S PAINFUL! IT ALSO BEGS THE QUESTION: WHAT IS THE PURPOSE OF THE LIMITED ENTRY PROGRAM?

ALTERNATIVES 2 AND 3, AS WELL AS ALTERNATIVE 5 (WHICH THE CPS MANAGEMENT TEAM DID NOT SUPPORT FOR GOOD REASON—IT WOULD ENCOURAGE A DERBY FISHERY AND CAUSE SIGNIFICANT ECONOMIC IMPACT TO THE LIMITED-ENTRY FISHERY IN CALIFORNIA) ALL INVOLVE MOVING THE LINE NORTH TO POINT ARENA. THE VAST MAJORITY OF THE WETFISH INDUSTRY IN CALIFORNIA OPPOSE THESE OPTIONS, BOTH OVER CONCERN FOR THE RESOURCE AND CONCERN OVER THE ECONOMIC HARDSHIP THIS DE-FACTO REALLOCATION WOULD CAUSE TO THE FEDERALLY-PERMITTED FISHERY IN MONTEREY AND SOUTHERN CALIFORNIA.

WE CONTINUE TO SUPPORT ALTERNATIVE 4, MOVING THE AUTOMATIC REALLOCATION DATE TO SEPTEMBER 1, AND OPENING THE HARVEST COAST-WIDE EFFECTIVE DECEMBER 1, AS THE SIMPLEST SOLUTION TO OFFSET ECONOMIC IMPACTS IN THE SHORT TERM, WHILE RESEARCH IS UNDERWAY TO BETTER UNDERSTAND STOCK STRUCTURE AND MIGRATION OF THE SARDINE RESOURCE.

PLEASE UNDERSTAND THAT SARDINES ARE NOT A SHORT-TERM REPLACEMENT FISHERY FOR CALIFORNIA — THEY ARE AND ALWAYS HAVE BEEN THE BACKBONE OF CALIFORNIA'S FISHING INDUSTRY. CALIFORNIA'S WETFISH INDUSTRY HAS PAID A HIGH PRICE FOR SARDINE RECOVERY AND WE DO NOT WANT TO REPEAT THE HISTORY OF THIS FISHERY. WE REITERATE OUR EARLIER PLEA TO APPROACH REALLOCATION DECISIONS WITH BABY STEPS. PLEASE OBTAIN THE NECESSARY INFORMATION ABOUT THIS RESOURCE BEFORE APPROVING FURTHER EXPANSION OF THE OREGON/WASHINGTON FISHERY. WE WILL BE HAPPY TO WORK WITH THE COUNCIL, ADVISORY SUBPANEL AND INDUSTRY TOWARD DEVELOPING A LONG-TERM ALLOCATION FRAMEWORK, HOPEFULLY BASED --AT LEAST IN PART-- ON BASELINE FIELD STUDIES GATHERED IN THE PACIFIC NORTHWEST IN 2003 AND 2004.

ON BEHALF OF CALIFORNIA'S WETFISH INDUSTRY, THANK YOU VERY MUCH FOR YOUR CONSIDERATION

SINCERELY,



DIANE PLESCHNER-STEELE
CALIFORNIA WETFISH PRODUCERS ASSOCIATION
DPLESCH@EARTHLINK.NET



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March 20, 2003

Dr. Hans Radtke, Chair
Dr. Donald McIsaac, Executive Director
Members of the Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220

RECEIVED

MAR 21 2003

PFMC

Subject: Allocation of the Sardine Resource

I am the President of California Refrigerated Services, Inc., a small business sardine processor in California for over 30 years. As you know, there is a Federally-permitted limited entry sardine fishery in California which was put in place to preserve the valuable sardine resource along the entire United States' West Coast. I was dismayed to learn that the PFMC is considering an expansion of this fishery in the Northwest.

I am deeply concerned that such an expansion of the resource is careless at best and negligent at worst with a declining quota in recent years, increased landings by Mexico, and fish in Southern California "undersized" by historical standards. Our Southern California sardines are exported all over the world and many livelihoods depend on this most valued resource.

Therefore, I am asking you not to change the quota scheme (or in the alternative, to move up the allocation date by 30 days to September 1 of each year) by expanding the prosecution of this fish in the Northwest. I believe prudence is absolutely necessary in the absence of sound research. The fishery was once decimated in the past. Only prudence and sound fishery management can prevent it from reoccurring.

Sincerely,

Peter Divona
President

PD:af



Subject: For BB public Comment
From: Donald McIsaac <donaId.mcisaac@noaa.gov>
Date: Thu, 20 Mar 2003 12:07:46 -0800

Please include below in PC
Thanks,
Don

----- Original Message -----

Subject: Sardine Allocation
Date: Thu, 20 Mar 2003 10:57:08 -0800
From: "Nicholas Ferrigno" <tferrigno301@earthlink.net>
To: <donaId.mcisaac@noaa.gov>
CC: "Donald McIsaac" <donaId.mcisaac@noaa.gov>

Dear Mr.McIsaac, My name is Ciro Ferrigno.I am a thirtynine year residant of San Pedro,California.I am a second generation commercial fisherman.My father Joe Ferrigno built his bussiness(F/V FERRIGNO BOY) and fished the waters of southern california for thirty years befor he passed.Together we have fish these waters for over fourthy years.Sardines have become a big part of my income.In recent years we have experianced many hard ships.Restrictions from no longer being able to fish Mexican waters to the most recent,The channel island area restrictions.It is becoming very difficult to make a living for myself and my now crew of eight men and our families.To lose some of our southern quota would be a devistating hit to our allready crippled industry. Thank You, Ciro Ferrigno

March 21, 2003

RECEIVED

MAR 21 2003

PFMC

Dr. Hans Radtke, Chair, Dr. Don McIsaac, Executive Director and
Members of the Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

SUBJECT: Allocation of the Sardine Resource

Dear Sirs,

I am writing this letter on the behalf of Monterey Sardine fishermen.

The fishermen from Monterey have no interest in any change with the current position of the north south line. It would not be in our best interest. We do support moving the reallocation date to September 1.

Please consider the importance of sardines to California – And the history of fishing in Monterey and southern CA. Sardines are a key part of California's fishing industry. It is imperative that you take the Monterey Sardine fishermen into account when making this decision.

Monterey supports Alternative 4, this is the simplest way to offset potential impacts to the fishery in the short term. And will have the least negative effect, now and in the future, when quality and market conditions return to what they were in the past.

List of Monterey Fisherman who strongly support Alternative 4.

Fisherman

Anthony Russo
Andy Russo
Richie Aiello
Dominic Alliotti
Sammy Mercurio
David Crabbe
Franco Sardina
Tommy Noto
Sal Mineo
Richard Deyerle
Frank Alliotti

Boat

King Philup
Sea Wave
New Stella
Alliotti Brothers
Mercurio Bros
Buccaneer
Anna S
Lady J
Mineo Bros
Miss Kristina
Eldorado

This list of fisherman represents 85% of the boats in Monterey with a Coastal Pelagics Limited Entry Permit. The percentage could be higher, but I was unable to contact everyone with such short notice.

In addition, I am very disappointed in the Individual representing Monterey fisherman. The Fishermen from Monterey have not been contacted on this issue or any other issue for that matter.

Thank you for your time and effort,

The Monterey fishing fleet



STATE FISH COMPANY, INC.

March 21 2003

RECEIVED

Dr. Hans Radke Chair
Dr. Don McIsaac Executive Director
Member of the Pacific Fisheries Management Council

MAR 21 2003

PFMC

Re: Sardine Allocation

The proposed short term solution to sardine reallocation must have the least amount of impact on participants based on recent landings.

Some proposals, like coast wide quota, encourage the Pacific Northwest to fish hard during there main season in summer, resulting in greatly reduced availability for Monterey and Southern California's strong fall fishery. This will shut down California in our peak season

Moving the line north could be disastrous. As water temperature drops and the decline in reproductivity drops (reported by Canadian research) quota will drop and we split less fish between an established limited entry fishery and a new open access experimental fishery.

Economically, California has endured the sardine moratorium. They participated in this fisheries rehabilitation with funds, and manpower and have been successful in rebuilding both the resource and its markets. This documented effort is worth something.

You need consistency to keep markets.

We have developed markets for large 100+ gram fish in certain years, as well as smaller angler bait, headed and gutted markets as well as bait. Different years dictate different market stragedies and California has participated in all of them.

California Sardines production keeps thousands of families employed as well as the support services of fuel, cold storage, truck companies etc. Loss of quota equals loss of community revenue in a significant way.

State Fish Co has participated in sardine production in the 1940s and 50 and again in the 1990s to present. We support the idea of additional research in order to expand the quota that may be harvested by the Pacific Northwest experimental fishery

It should not come at the expense of existing fishermen, and their support community.

A possible solution may be a September re allocation date so the Oregon fishery may harvest for an additional month at which time weather slows things down.

Thank you

Vanessa DeLuca

March 21, 2003

Dr Hans Radke.
Dr. Don McIssac
Members of the Pacific Fisheries Management Council

Re: Sardine Allocation

As stake holders in the Sardine fishery we have experienced the restrictions of a complete sardine moratorium and the difficulty of the restricted sardine fishery of the 1980's and early 1990's. We have worked with the scientific community and California Department of Fish and Game to get the quota opened.

Access to this fishery is CRUCIAL to Southern California. It is common to be given a squid or mackerel order - when nothing is available (which is exactly the situation this season) then we are able to put sardines on board keeping the boat and shore based crew running.

We need steady supply to maintain the markets we have worked so hard to build these last few years.

We can support moving the reallocation date from October to September to give the Pacific Northwest more fishing opportunity.

We cannot support the other proposed alternatives.

Many Monterey boats are able to move north and do participate in both fisheries. The southern California fleet by and large does not have this opportunity.

Fishermen see changes in the ocean condition. Water temperature is dropping and it is likely that the quota will be reduced.

We cannot afford to loose this quota which we have worked so hard to get.

We encourage research in the Northwest in order to increase the quota, in the same manner as California fishermen have done.

Sincerely,

John Aiello

Flu Retriever
Flu midnighthour



Subject: [Fwd: FW: Fw: Sardine Allocation]
From: "Donald McIsaac" <Donald.McIsaac@noaa.gov>
Date: Mon, 24 Mar 2003 08:51:52 -0800

BB item for G.2

----- Original Message -----

Subject: FW: Fw: Sardine Allocation
Date: Mon, 24 Mar 2003 08:28:46 -0800
From: "Car, John" <JCar@trimarine-usa.com>
To: "donald.mcisaac@noaa.gov" <donald.mcisaac@noaa.gov>

Dr. Hans Radtke, Chair, Dr. Don McIsaac, Executive Director, and Members of the Pacific Fishery Management Council,

My name is John Car and I represent Tri-marine Fish Company, a major processor in the So. Calif. fishing Industry. Our company employs _ more than 300?_ people on a full-time basis, and is very important to the economy of our community.

Tri-Marine also employs six purse seine fishing vessels with crews averaging 8-10 fishermen each, all with Federal Permits to fish Sardines, which they need to make ends meet in the wetfish fisheries. These boats are the cornerstone of the So. Calif. fishing industry and have been for many generations. The So. Calif. wetfish industry produces the largest volume of fish landed commercially in California, on average more than 80 percent.

Over the years with all their hard work, the So. Calif. wetfish industry has developed a huge market for Sardines throughout the world. We have supplied the Tuna farms of Australia, the canneries of South America and the Philippines, and also the many needs of Japan and Europe.

It seems ironic to me that all this hard work over the years might be for naught, due to the political pressure now applied from the North to secure more quota. The new fishery in OR and WA want more quota, but they market to the same markets that the South built in the past and present. Sardines are a cyclical resource and a commodity traded on the world market. The markets are cyclical as well. Sardines are now abundant in Australia and Morocco, and in short supply in Japan. We shift our marketing strategies according to these market fluctuations. But the North now wants to jump in and take advantage of what the South has built up over the years. Shouldn't OR and WA do some kind of research first to see what their supply of sardines is all about, as California did when the sardine fishery reopened here, instead of pushing for more quota at the expense of the Calif. fishery so they can make money in the short term? Why have a limited entry fishery in California if you're going to restrict it or shut it down in peak season to provide a new fishery in the North? Isn't that overcapitalizing the resource? Why is it that the Calif. fishing fleet who fish for Sardines all must hold Federal Permits to fish, but the fleet in OR and WA DO NOT. WHY?

The cycle of Sardines shifted up north for a period, but the ocean is changing again, and the larger fish are coming back into our fishery in the South. If our fishery is restricted, the local communities in So. Calif., along with the Fishermen and Processors, will be facing major economical hardship if the Sardine fishery is not a part of our future, as it has been before.

Right now the North is getting the larger mature fish, which many times are too big for the different markets they are targeting. Then the only out they have is to use it for reduction, and that is ridiculous. With some research, we could find out that these larger fish that are being ground up at the dock are the spawners that the resource and our fishery depend on.

Lets take a step back and look what's unfolding in front of us. We should do some type of research to see the overall effect of the Northern fishery before it is too late and everybody suffers. For the short term, moving the reallocation date up a month to September 1 would be the simplest way to offset potential impacts. We could support this option while research is underway. Please do the research on the northern sardine stocks before radically changing the existing structure of our sardine fishery and causing devastation to the traditional sardine industry in California.

Thank you,

John Car

Tri-Marine Fish Company

220 Cannery Street

San Pedro, Ca 90731

310-547-1144

jcar@trimarine-usa.com



United States Senate

WASHINGTON, DC 20510-0504

<http://feinstein.senate.gov>

March 10, 2003

RECEIVED

MAR 17 2003

PFMC

Dr. Hans Radtke, Chair, and
Members of the Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

Dear Dr. Radtke and Council members,

I am writing to ask the Pacific Fishery Management Council to conduct thorough research on current fish stocks and use caution before authorizing further expansion of the sardine fishery in the Pacific Northwest. In the absence of knowledge about the stocks, eliminating the existing allocation system would jeopardize the sardine resource.

Pacific sardines are an historic and cultural resource, and economically valuable to the State of California. During the 1930s and early 1940s, when sardines were the largest fishery in the western hemisphere, California landed 97 percent of the U.S. Pacific sardine harvest. When the resource declined in the 1940s and collapsed in the 1950s, California's fishing industry suffered the greatest during a fishing moratorium that extended nearly 20 years. Industry-supported research and cooperation with the Department of Fish and Game fostered better understanding of the sardine resource in California, and ultimately, led to its recovery.

California's historic fishery has since come full circle, and the industry is once again dependent on sardines. As in the traditional fishery, sardines, mackerel, and squid represent more than 80 percent of California's total commercial fishery harvest today.

Since 2000, the sardine fishery has been managed under the federal Coastal Pelagic Species Fishery Management Plan. California's fishery is managed under a limited entry program, but "open access" fisheries have emerged and expanded rapidly in Oregon and Washington. However, all of the biomass estimates and harvest guidelines are still based on research conducted off southern California. To date, the stock structure and migration rates of the sardine resource in the Pacific Northwest are largely unknown.

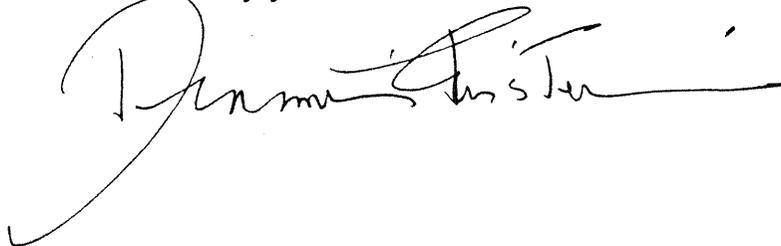
In recent years, scientists have acknowledged the uncertainties and limitations inherent in extrapolating to the Northwest stock assessments and harvest guidelines developed off California. Furthermore, they do not know the impact of increasing the harvest of the mature fish that are the target in the Pacific Northwest fishery.

The current stock assessment finds that sardine population growth appears to have leveled off. Harvest guidelines have declined for the past three years, and the ocean may have entered another cold-water cycle, causing a natural decline of the sardine resource. The historical pattern of the sardine fishery strongly suggests that this is a time to exercise caution in fishery management. This caution should be amplified by the degree of uncertainty expressed by scientists.

Please know I support the Council's recent call for a coast-wide research program on the sardine resource. Considering the facts at hand – declining harvest quotas and possibly a declining resource – I recommend that the Council obtain the necessary information about this resource before authorizing further expansion of the sardine fishery in the Pacific Northwest. In the absence of precaution, the sardine resource could crash as it did in the 1950s, and the resulting economic hardship would surely parallel the current groundfish crisis.

The sardine resource is the foundation of California's fishing industry, and it is important to learn from the lessons of the past. Thank you very much for your consideration of this request.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Dennis Christensen". The signature is written in a cursive style with a large, sweeping initial "D" and a long horizontal stroke at the end.

's Remember Why We Are Here

To avoid a closure in the Northern California, Oregon and Washington sardine fisheries during the 2003 season when the coastwide harvest guideline remains underutilized and unharvested.

How did we get here?

- The antiquated allocation scheme in place allows for a significantly larger allocation of fish to the southern management area than that area has been able to catch or utilize in recent years, leaving well over 150,000 metric tons of fish essentially "on the table" in the last three years.

Southern Management Area (southern California)				
year	landings	allocation	percent of allocation caught	fish left on the table
2000	42,296 mt	124,527 mt	34%	82,231 mt
2001	44,708 mt	89,825 mt	50%	45,117 mt
2002	49,366 mt	78,961 mt	63%	29,625 mt
2003	14,693 mt	73,939 mt	20%	
			<i>total</i>	156,613 mt

considerations and evaluations

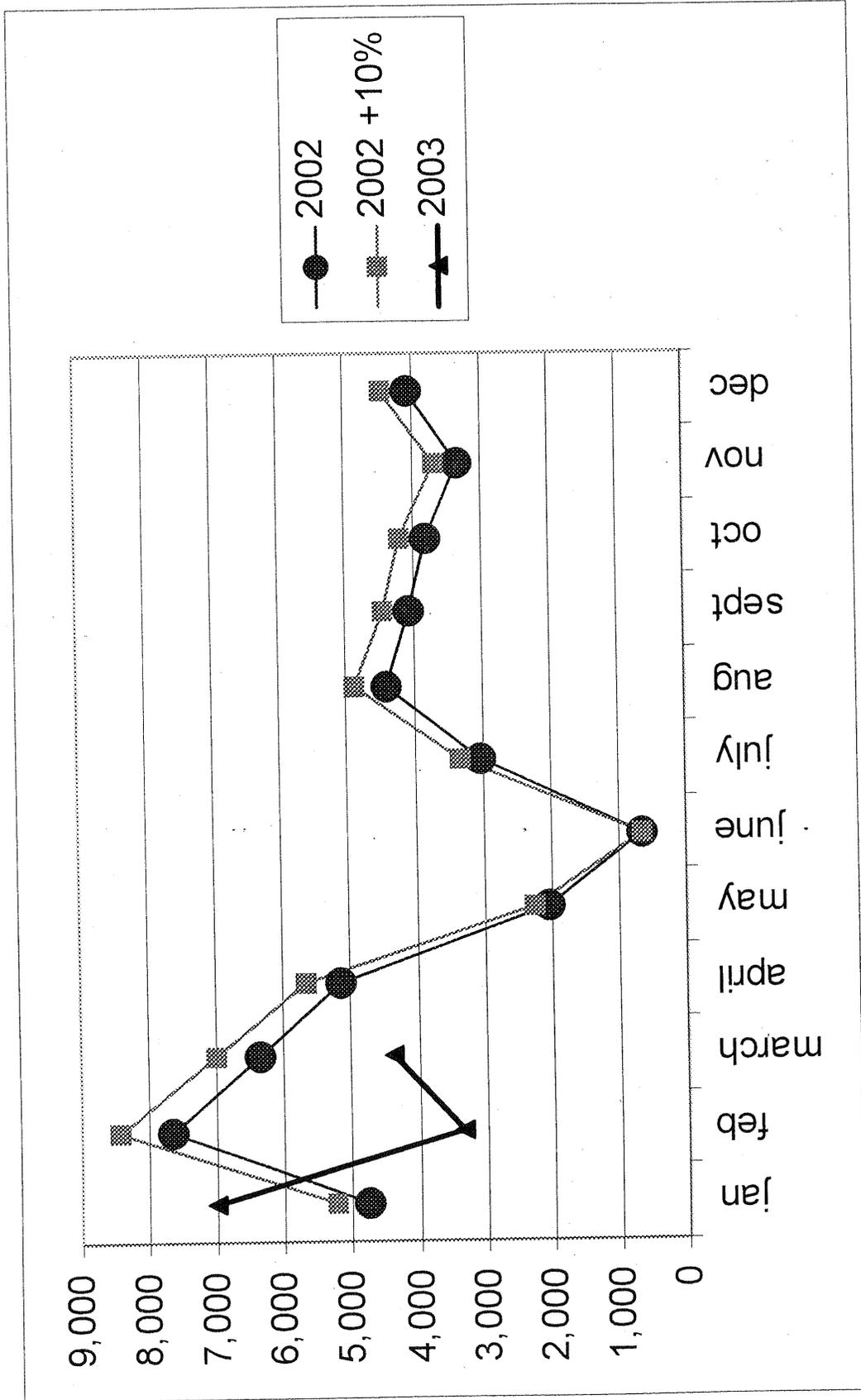
Implement an **interim** (2 year) change to the allocation to prevent socioeconomic problems in 2003.

- There is NOT a resource sustainability concern associated with this interim measure
- Status quo not an option - this puts us in the position we were in last year which we are trying to avoid
- Option 4 is basically status quo and does not meet the objectives for why we are here. Things have changed since 2002. Monterey has already landed 5,594 mt while in 2002 during the first quarter Monterey had only landed 1,161 mt. That is an increase in landings of 4,433 mt for the time period which equates to a 79% growth. During the same period in 2000 and 2001 Monterey landed 376 mt and 675 mt respectively. Many in the Pacific northwest are planning to start their season in June. There are increased market orders. For all those reasons simply moving the reallocation date to September 1st does not solve the problem. **The fishery will still close some time during the beginning of August and there will be a significant amount of fish left unharvested in the southern management area.**
- Southern California will not reach the predicted landings of 2002 plus 10%. We have already seen this reflected in the landings for the first quarter in 2003. This is a direct result of loss of market, for example, the Australians have doubled their domestic quota for sardine to 36,000 mt, essentially eliminating a large part of the market for southern California fish.
- Options 3 or 5 have the best chance of preventing a closure in any one sector and the best chance of obtaining optimum yield or full utilization of the available harvest guideline.
- There will be no jobs lost as a direct result of implementing options 3 or 5. If status quo or Option 4 are adopted there will be significant job loss in the northern management area. Why would we regulate people off the water when there is an underutilized and unharvested coastwide harvest guideline available? The Council and ultimately NMFS and the Secretary of Commerce felt that avoiding the economic damage of a closure to the northern fishery was so important that emergency action was taken in 2002. **If option 4 is implemented managers will face the same situation in 2003 - we must avoid this!**

Sardine Allocation

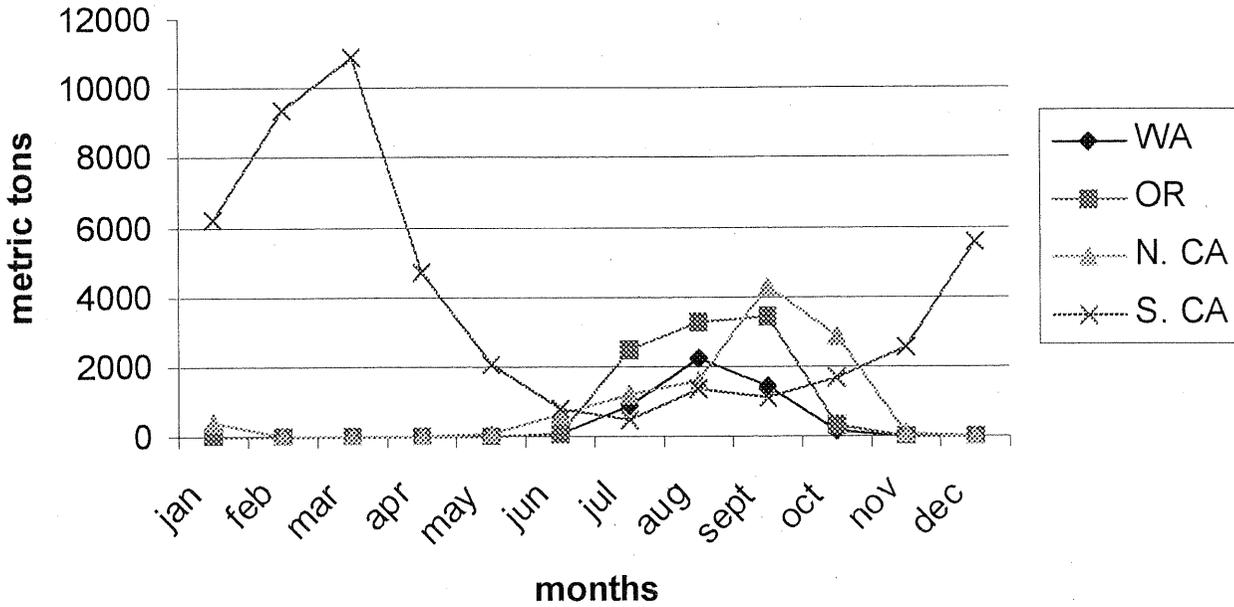
<u>Alternatives</u>	<u>Achieve Coastwide OY?</u>
Option 1	NO
Option 2	NO
Option 3	YES
Option 4	NO
Option 5	YES

Southern California Landings for 2002, 2002+10%, and 2003

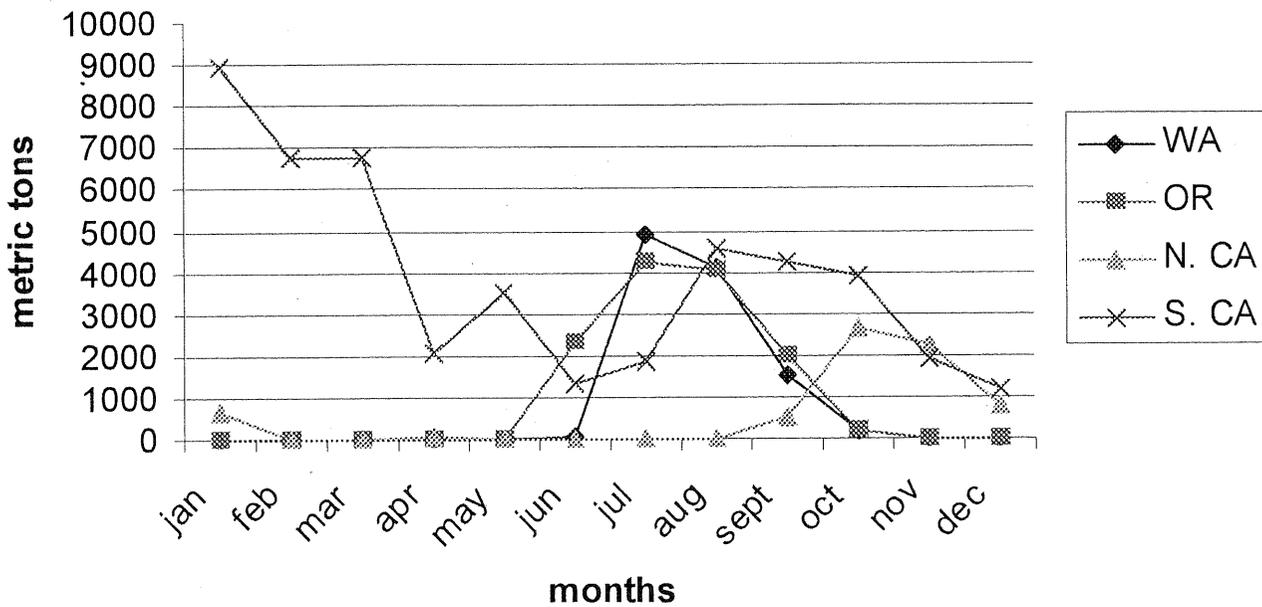


For the first quarter of 2003, southern California landings were predicted to reach 20,675 metric tons. Actual landings are 14,693 metric tons, a difference of 5,982 metric tons. Landings are already off by 29% during the peak landings period for the area (see reverse).

2000 landings by month



2001 landings by month



DON H. SMITH
OREGON**United States Senate**

WASHINGTON, DC 20510-3704

April 9, 2003

The Honorable Conrad Lautenbacher, Jr.
Undersecretary of Commerce for Oceans and Atmosphere and NOAA Administrator
14th Street and Constitution Avenue, NW
Washington, D.C. 20230

Urgent: Sent via facsimile

Dear Admiral Lautenbacher:

I am writing to request your assistance to ensure the management of the Pacific sardine fishery reflects changing ocean conditions and related sardine population movements and expansion. I believe the Pacific Fishery Management Council (the Council) should take urgent action to ensure that a premature closure of the northern management area of the Pacific sardine fishery does not occur in the future while fish is still available for harvest on the coastwide harvest guideline.

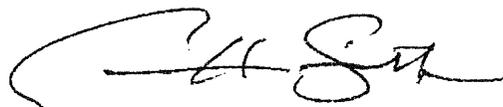
As you know, many coastal communities in Oregon and Washington have been negatively impacted by the successive collapses of the coastal salmon and Pacific groundfish fisheries over the last ten years. Many fishers have left the industry altogether or moved to alternate fisheries to support their families. However, recent changes in ocean conditions have brought an unexpected surge in the population of sardines off of the Pacific Northwest coast. This fishery has helped many Oregon fishing families weather the current groundfish crisis.

The Pacific sardine fishery quota is divided into a northern and southern zone. However, as mentioned above, the sardines have been appearing in much greater numbers in the northern zone off of Oregon and Washington over the last three years. Unfortunately obsolete regulations continue to allocate sardine harvest to the southern zone even though much of the sardine biomass is now appearing in the northern area. I believe the Council should adopt regulations that reflect these changes and allow the reallocation of the sardine quota from the southern zone to northern zone as circumstances warrant.

The Council is currently considering several alternatives to address this issue. I urge your support of either "Alternative 3" or "Alternative 5." Both of these options would allow for the management of this fishery to more accurately reflect sardine population trends and the needs of coastal communities in the Pacific Northwest.

I appreciate your consideration of this request. Please do not hesitate to contact me for more information on this matter.

Sincerely,



Gordon H. Smith
United States Senator

Cc: Bob Lohn, NMFS Regional Director
Bill McDonald
Hans Radtke, Pacific Fishery Management Council Chairman

Congress of the United States

Washington, DC 20515

April 8, 2003

Dr. Hans Radtke, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

Mr. Rod McInnis, Regional Administrator
NOAA Fisheries - Southwest Region
501 W. Ocean Blvd., Suite 4200
Long Beach, CA 90802

Dear Dr. Radtke, Mr. McInnis, and Council Members:

We are writing to you regarding the upcoming Pacific Fishery Management Council (PFMC) meeting. As we understand it, one of the matters to be discussed and decided at this meeting is the proposed regulatory amendment for changes to the sardine fishery allocation. The PFMC will be considering five alternatives for management and interim revisions to the Pacific sardine allocation framework within the Coastal Pelagic Species Fishery Management Plan.

As you know, Washington and Oregon have struggled greatly with the downturn of the economy and currently suffer some of the highest unemployment rates in the country. The sardines harvested in the north are approximately three times larger than the sardines caught in the south. The larger sardines are sold per ton at markets for 50% to 100% times the price per ton of the smaller sardines caught in the south. At the mouth of the Columbia River, this translates into approximately 1,000 jobs in Ilwaco and Astoria and a very large economic benefit to the rural coastal communities of Washington and Oregon.

As we understand it, the north has not been able to maximize the harvest of sardines because the harvest guidelines are apparently not fully utilized. Under the Magnuson-Stevens Fishery Conservation and Management Act, one of the national standards for fishery management plans is the efficient utilization of available harvest. This standard allows for maximum harvest while preserving the fishery. However, in the sardine fishery, the larger fish found in the north are higher in oil and fat content, resulting in fewer fish being caught before the harvest guideline tonnage limit is reached. This suggests the fishery is not being managed as efficiently as it could be.

In 2002, the northern fishing season was prematurely closed on September 14th when the harvest guideline limit was caught. Reallocation of the remaining harvest would not have occurred until October 1st. Both the PFMC and our offices contacted NOAA Fisheries in order to support reallocating the fishery prior to October 1st. While our joint efforts were successful in quickly reopening the fishery, it is estimated that 28,000 metric tons of the remaining harvest guideline for sardines were not caught, which was still a strong blow to an already economically depressed area.

April 8, 2003

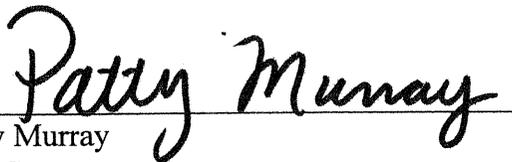
Page 2

The northern sardines are returning at greater rates each year. As a result of the potential increase in harvest in the north, several processors and secondary businesses would like to expand existing operations or locate new facilities at or near the mouth of the Columbia River. However, without an increase in the northern harvest guideline, they lack the certainty of increased harvest capacity and cannot move forward with their economic development and business plans. Further business investment in the northern region's economy and communities is dependent upon the increased harvest guideline for the northern sardine fishery.

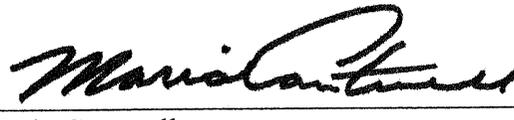
We have consulted with representatives of the ports, sardine processors, commercial fishermen, and seasonal employees affected by the proposed changes to the northern region fishery allocation. We are supportive of increasing the harvest guideline for Washington and Oregon. In addition, we support any opportunity to allow for maximum harvest, while still ensuring sustainability of the fishery. This will generate the certainty local businesses need to expand or locate operations in Washington and Oregon and generate new jobs and revenue for the struggling local economies. We strongly encourage the PFMC to take these factors into consideration when reviewing the alternatives outlined in Exhibit G.2.b in the Coastal Pelagic Species Management Team Report for April 2003.

We appreciate your attention to this matter.

Sincerely,



Patty Murray
U.S. Senator



Maria Cantwell
U.S. Senator



Brian Baird
US Representative, 3rd Congressional District, Washington

CALIFORNIA WETFISH PRODUCERS ASSOCIATION

**2194 SIGNAL PLACE
SAN PEDRO, CA 90731**

APRIL 10, 2003

DR. HANS RADTKE, CHAIR, DR. DON MCISAAC, EXECUTIVE DIRECTOR AND
MEMBERS OF THE PACIFIC FISHERY MANAGEMENT COUNCIL
7700 NE AMBASSADOR PLACE, SUITE 200
PORTLAND, OR 97220

SUBJECT: FURTHER COMMENTS ON REALLOCATION OF THE SARDINE RESOURCE

DEAR DR. RADTKE, DR. MCISAAC AND COUNCIL MEMBERS,

THESE COMMENTS ARE SUBMITTED BY THE CALIFORNIA WETFISH PRODUCERS ASSOCIATION ON BEHALF OF THE SAN PEDRO PURSE SEINE FLEET -- 29 VESSEL OWNERS WHO EMPLOY APPROX. 232 FISHERMEN -- AND THE MAJORITY OF SARDINE PROCESSORS IN SOUTHERN CALIFORNIA, WHO EMPLOY IN AGGREGATE 1,370 PEOPLE. IN ADDITION, THESE COMMENTS REPRESENT THE VIEWS OF THE MAJORITY OF SARDINE FISHERMEN AND PROCESSORS IN MONTEREY. ONCE AGAIN, WE RE-EMPHASIZE THE IMPORTANCE OF SARDINES AS THE "BREAD AND BUTTER" STAPLE IN THESE FISHING COMMUNITIES, AND THE FOUNDATION OF CALIFORNIA'S WETFISH INDUSTRY. CALIFORNIA'S WETFISH INDUSTRY REPRESENTS MORE THAN 80 PERCENT OF TOTAL COMMERCIAL LANDINGS IN THE STATE; MOREOVER, SARDINES CONTRIBUTE MILLIONS OF DOLLARS A YEAR TO THE STATE IN LANDINGS TAXES AND LICENSE FEES.

CALIFORNIA'S WETFISH INDUSTRY HAS INVESTED MILLIONS OF DOLLARS IN EFFORTS TO RECOVER THE SARDINE RESOURCE, AFTER SUFFERING THROUGH A FISHING MORATORIUM THAT EXTENDED NEARLY TWO DECADES. WE URGE THE COUNCIL TO CONSIDER THE LESSONS OF THE PAST AND NOT REPEAT THE HISTORY OF THIS FISHERY.

THE COUNCIL HAS ACKNOWLEDGED THE GREAT UNCERTAINTIES AND LACK OF KNOWLEDGE OF THE COAST-WIDE SARDINE RESOURCE, AND THE MANY ASSUMPTIONS MADE IN EXTRAPOLATED BIOMASS ESTIMATES AND HARVEST GUIDELINES UNDERLYING CURRENT MANAGEMENT POLICIES. A LETTER DATED OCTOBER 22, 2002, SUBMITTED TO THE COUNCIL BY DR. FRANK HESTER, WHO HAS MORE THAN 40 YEARS OF SARDINE RESEARCH TO HIS CREDIT, RECOMMENDED "...THE COUNCIL SHOULD MOVE WITH GREAT CAUTION UNTIL THERE IS SOME UNDERSTANDING ABOUT HOW THESE LARGE FISH CONTRIBUTE TO THE SPAWNING BIOMASS... AND OBTAIN THE NECESSARY INFORMATION ... BEFORE TAKING ANY ACTION TO ENCOURAGE FURTHER EXPANSION OF THIS FISHERY IN AREA OR IN HARVEST LEVEL ON THE MATURE STOCKS..."

OUR PRIOR TESTIMONY HAS HIGHLIGHTED THE IMPORTANCE OF THE SARDINE FISHERY, BOTH CULTURALLY AND ECONOMICALLY, TO THE STATE OF CALIFORNIA AND OUR LOCAL COMMUNITIES. THE COUNCIL HAS RECEIVED LETTERS FROM SENATOR DIANNE FEINSTEIN AND 12 CONGRESSIONAL REPRESENTATIVES FROM CALIFORNIA'S MAJOR FISHING PORTS AND OTHERS WHO SUPPORT OUR LOCAL FISHING FLEETS, ALSO RECOMMENDING THAT THE COUNCIL EXERCISE CAUTION AND CONDUCT THE FIELD RESEARCH PLANNED FOR 2003 AND 2004 BEFORE AUTHORIZING FURTHER EXPANSION OF THE NEW SARDINE FISHERY IN THE PACIFIC NORTHWEST.

CLEARLY, THE CPS FISHERY MANAGEMENT PLAN DID NOT ACCOUNT FOR THE EMERGENCE AND RAPID EXPANSION OF THE SARDINE FISHERY IN OREGON AND WASHINGTON. THE FINAL RULE FOR AMENDMENT 8 (FR V.64 No.40 P.69888) STATED THE INTENT OF AMENDMENT 8 "WILL PREVENT OVER-FISHING, MAXIMIZE YIELD...AND CONTROL INCREASING HARVESTING CAPACITY OFF THE PACIFIC COAST."

AMENDMENT 8 ESTABLISHED A LIMITED-ENTRY SYSTEM FOR THE CALIFORNIA FISHERY, DEMARCATION LINE AT PT. ARENA BECAUSE HISTORICALLY 99 PERCENT OF THE SARDINE

ORLANDO AMOROSO
S.C.A. COMMERCIAL
FISHING ASSOC.

VANESSA DELUCA
STATE FISH
COMPANY

JOHN CAR
TRI-MARINE FISH CO.

PETE GUGLIELMO
SOUTHERN CA
SEAFOOD

FRANK TOMICH
TOMICH BROS.
SEAFOOD

PETER DIVONA
CRS / STANDARD
SEAFOOD

JOE BURCH
OCEAN GEM
SEAFOOD

MIKE CARPENTER
SUN COAST
CALAMARI

JOHN GINGERICH
HUENEME FISH
PROCESSORS INC.

.....

REPRESENTING
29 PURSE SEINE
VESSEL OWNERS
WHO EMPLOY
232 FISHERMEN
AND
8 COMPANIES WITH
1,370 EMPLOYEES

RESOURCE WAS HARVESTED SOUTH OF PT. ARENA. THE FMP ALSO ESTABLISHED A TRIP LIMIT FOR THE STATED REASON: TO AVOID RAPID EXPANSION OF THE FLEET. SOME VETERAN WETFINCH FISHERMEN WHO DID NOT HAVE SARDINE LANDINGS IN THE 1993-1997 WINDOW PERIOD WERE DENIED PERMITS. ACCORDING TO THE FINAL RULE (P. 69891): "THE GOAL OF LIMITED ENTRY IS TO ENSURE THAT THERE IS NO MORE CAPITAL INVESTED IN THE FISHERY THAN NECESSARY." AND: THE LIMITED ENTRY SCHEME, BESIDES PREVENTING OVERCAPITALIZATION, IS DESIGNED TO PROTECT HISTORIC PARTICIPATION IN THE FISHERY..." FURTHER, "...WHEN ONE OR MORE RESOURCES EXHIBIT LARGE ABUNDANCE, ANY VESSEL MAY HARVEST NORTH OF 39° N. LAT. WITHOUT A LIMITED ENTRY PERMIT." THIS IS NOT TRUE.

UNFORTUNATELY, REALITY FALLS FAR SHORT OF THE IDEAL SCENARIO ENVISIONED IN THE FINAL RULE:

--THE CPS FMP LIMITED THE TRADITIONAL FISHERY IN CALIFORNIA; AMENDMENT 10 ALSO ESTABLISHED A CAPACITY GOAL. BUT NOW—THREE YEARS AFTER THE CPS FMP WAS ADOPTED – RATHER THAN CONTROL HARVEST CAPACITY, THE "OPEN ACCESS" FISHERY IN OR AND WA HAS MUSHROOMED TO AT LEAST 39 ACTIVE PERMITS IN THE ABSENCE OF FEDERAL OVERSIGHT, AND FISHERY INTERESTS NOW ASK THE COUNCIL TO APPROVE A POLICY THAT CURTAILS CALIFORNIA'S LIMITED ENTRY FLEET DURING ITS PEAK SEASON SO IT CAN EXPAND EVEN FURTHER – NOTWITHSTANDING THE LACK OF KNOWLEDGE ABOUT NORTHERN SARDINE STOCKS. THE PNW SARDINE FISHERY IS LIKELY OVERCAPITALIZED ALREADY; IT IS CERTAINLY NOT SUSTAINABLE AT CURRENT HARVEST LEVELS. FURTHER RESTRICTION OF THE FEDERALLY PERMITTED LIMITED ENTRY FISHERY IN CALIFORNIA TO PROVIDE INCREASED FISHING IN THE OPEN ACCESS AREA WAS NOT THE INTENT OF THE CPS FMP.

--ANOTHER PROBLEM: THE ALLOWABLE BIOLOGICAL CATCH PRODUCED FROM EXTRAPOLATED ESTIMATES OF SPAWNING BIOMASS SETS A HARVEST GUIDELINE FOR THE U.S. FISHERY AT 87 PERCENT OF THE TOTAL BIOMASS, ALLOWING 13 PERCENT FOR MEXICAN ACTIVITY AND NOTHING FOR CANADA. IN REALITY, MEXICO REPORTED A HARVEST OF MORE THAN 43,000 MT IN 2002, AND ANNOUNCED IT WILL HARVEST 40,000+ TONS IN 2003. IN ADDITION, CANADA ANNOUNCED A 5,000 TON QUOTA.

2002 HG FORMULA

<u>TOTAL BIOMASS (MT)</u>	<u>CUTOFF (MT)</u>	<u>FRACTION (%)</u>	<u>COAST ABC</u>	<u>US HG (87%)</u>	<u>MEXICAN ALLOW. (13%)</u>
1,057,599	150,000	15%	136,140 MT	118,442 MT	17,698 MT
<u>2002 HARVEST REALITY</u>			<u>144,805 MT</u>	<u>101,368 MT</u>	<u>43,437 MT</u>

2003 HG FORMULA

<u>TOTAL BIOMASS (MT)</u>	<u>CUTOFF (MT)</u>	<u>FRACTION (%)</u>	<u>COAST ABC</u>	<u>US HG (87%)</u>	<u>MEXICAN ALLOW. (13%)</u>
999,871	150,000	15%	127,480 MT	110,908 MT	16,572 MT
<u>2003 HARVEST POTENTIAL IF US ACHIEVES OY</u>			<u>155,908 MT*</u>	<u>110,908 MT</u>	<u>40,000+ MT</u>

(* INCLUDES 5,000 MT CANADIAN QUOTA)

BASED ON ACKNOWLEDGED "BEST AVAILABLE SCIENCE" USED TO DETERMINE COASTWIDE BIOMASS ESTIMATES AND HARVEST GUIDELINES – THE SARDINE FISHERY EXCEEDED ABC COASTWIDE IN 2002 AND WILL AGAIN EXCEED ABC IN 2003. EXCEEDING ABC IS DEFINED AS OVER-FISHING.

THE POINT IS: THERE IS NO ROOM FOR EXPANSION IN THIS FISHERY.

YET ANOTHER POINT OF CONCERN IS THE TEMPERATURE CONTROL RULE, WHICH WILL CUT THE HARVEST RATE FROM 15% TO 5% WHEN THE 3-YEAR AVERAGE SST DROPS TO 16.8 DEGREES C. THE WATER TEMPERATURE IS CLOSE TO THE CUTOFF POINT NOW. THE ENSO DIAGNOSTIC DISCUSSION ISSUED BY THE NWS CLIMATE PREDICTION CENTER ON MARCH 6 NOTED THE POSSIBLE DEVELOPMENT OF LA NIÑA LATER THIS YEAR.

IN FACT, MANY OCEANIC CONDITIONS SIGNAL THE BEGINNING OF A SHIFT TO A COLD-WATER REGIME UNFAVORABLE TO SARDINES. SCIENTISTS REPORT A DECLINE IN PRODUCTIVITY AT BOTH ENDS OF THE RANGE. THE HARVEST GUIDELINE HAS DECLINED FOR THE PAST THREE YEARS RUNNING, AND THIS TREND IS LIKELY TO CONTINUE.

THE "SHORT-TERM FIX" NOW BEFORE THE COUNCIL WILL GOVERN THE FISHERY FOR 2003, 2004 AND POSSIBLY EVEN PART OF 2005, CONSIDERING THE POSTPONEMENT OF THE STAR PANEL UNTIL SPRING 2004. IT'S LIKELY THAT THE HARVEST GUIDELINES WILL CONTINUE DROPPING DURING THIS PERIOD AND THE HARVEST RATE MAY DROP AS WELL.

CONSIDERING THE FMP'S STATED GOAL TO PROTECT HISTORIC PARTICIPATION IN THE FISHERY, THE INTERIM MEASURE ADOPTED BY THIS COUNCIL SHOULD AVOID OPTIONS THAT RESTRICT THE LIMITED ENTRY FISHERY IN CALIFORNIA.

RE: ECONOMICS, THIS COUNCIL HAS HEARD TESTIMONY FROM PACIFIC NORTHWEST INTERESTS THAT NORTHERN SARDINES DO NOT COMPETE WITH CALIFORNIA PRODUCT. THIS IS A FALSE STATEMENT.

THE MARKETS ARE THE MARKETS. PACIFIC SARDINES FILL MARKETS WORLDWIDE – MARKETS DEVELOPED PRIMARILY BY CALIFORNIA'S WETFISH INDUSTRY:

LARGER FISH TYPICALLY GO TO JAPAN FOR HUMAN CONSUMPTION AND HAND-PACKED LONG-LINE BAIT; LARGE AND SMALLER FISH ARE CANNED, BOTH FOR HUMAN CONSUMPTION AND PET FOOD; SOME SARDINES ARE FROZEN IQF; SOME ARE PROCESSED H&G AND EXPORTED FOR CANNING OVERSEAS; SOME ARE BLOCK-FROZEN FOR EXPORT-- FOR CANNING OVERSEAS FOR HUMAN CONSUMPTION, AND ALSO FOR BAIT, FISH AND ANIMAL FEED. SOUTHERN CALIFORNIA PRODUCERS FILL VIRTUALLY ALL THESE MARKETS – THEY DON'T JUST PACK FROZEN BLOCKS FOR TUNA BAIT. THE RECENTLY DEVELOPED FISHERY IN OREGON AND WASHINGTON COMPETES WITH CALIFORNIA'S TRADITIONAL SARDINE FISHERY IN MOST, IF NOT ALL, OF THESE MARKETS.

THE REALITY IS, SARDINES ARE AN INTERNATIONAL COMMODITY AND MARKET OPPORTUNITIES FLUCTUATE ON ECONOMIC CYCLES OF SUPPLY AND DEMAND, AS WELL AS ON BIOLOGICAL CYCLES. A FEW YEARS AGO, A SHORTAGE OF AUSTRALIAN SARDINES OPENED MARKETING OPPORTUNITIES DOWN UNDER. TODAY THE SHORTAGE IS IN JAPAN. CONTRARY TO PRIOR TESTIMONY, SOUTHERN CALIFORNIA'S SARDINE INDUSTRY IS STILL VERY MUCH ALIVE! ECONOMIC ANALYSES INDICATE NOT MUCH DIFFERENCE IN VALUE BETWEEN THE REGIONAL FISHERIES. THE BIG DIFFERENCE IS IN FISHING INFRASTRUCTURE: ON AVERAGE 80 PERCENT OF CALIFORNIA SARDINE LANDINGS ORIGINATE IN SOUTHERN CALIFORNIA; THE HARVEST CAPACITY OF MONTEREY AND S.CA. COMBINED IS THREE TIMES LARGER THAN OR/WA. SARDINES ARE NOT A SHORT-TERM REPLACEMENT FISHERY FOR CALIFORNIA – THEY ARE AND ALWAYS HAVE BEEN THE BACKBONE OF CALIFORNIA'S FISHING INDUSTRY.

PLEASE CONSIDER THAT EVEN IN THE SHORT TERM, THIS REALLOCATION SETS A PRECEDENT. IF THE COUNCIL MOVES THE ALLOCATION LINE NORTH TO POINT ARENA, THAT **WILL RESULT IN A SIGNIFICANT DE-FACTO INCREASE IN ALLOCATION TO THE PACIFIC NORTHWEST**, ENCOURAGE FURTHER PRESSURE ON THE MOST FECUND SPAWNING STOCKS AND POSSIBLY HASTEN THE DECLINE OF THE SARDINE RESOURCE. MOREOVER, THIS EXPANSION WILL COME AT THE SHORT AND LONG-TERM SEVERE ECONOMIC HARDSHIP OF THE LIMITED-ENTRY CALIFORNIA FISHERY BY CLOSING THE FISHERY DURING ITS PEAK SEASON.

ALTERNATIVES 2 AND 3, AS WELL AS ALTERNATIVE 5 – WHICH THE CPS MANAGEMENT TEAM REJECTED AS NOT REASONABLE BECAUSE IT WOULD ENCOURAGE A DERBY FISHERY AND CAUSE SIGNIFICANT ECONOMIC IMPACT TO THE LIMITED-ENTRY FISHERY IN CALIFORNIA -- ALL INVOLVE MOVING THE LINE NORTH TO POINT ARENA.

THE VAST MAJORITY OF THE WETFISH INDUSTRY IN CALIFORNIA OPPOSE THESE OPTIONS, BOTH OVER CONCERN FOR THE RESOURCE AND CONCERN OVER THE ECONOMIC HARDSHIP THIS DE-FACTO REALLOCATION WOULD CAUSE TO THE FEDERALLY-PERMITTED FISHERY IN MONTEREY AND SOUTHERN CALIFORNIA.

A MAJORITY OF CALIFORNIA'S SARDINE INDUSTRY SUPPORTS ALTERNATIVE 4, MOVING THE AUTOMATIC REALLOCATION DATE TO SEPTEMBER 1, AND OPENING THE HARVEST COAST-WIDE EFFECTIVE DECEMBER 1, AS THE SIMPLEST SOLUTION TO OFFSET ECONOMIC IMPACTS IN THE SHORT TERM, WHILE RESEARCH IS UNDERWAY TO BETTER UNDERSTAND STOCK STRUCTURE AND MIGRATION OF THE SARDINE RESOURCE. THIS PARALLELS THE REGULATORY ACTION TAKEN BY NMFS IN 2002 ANALYSIS OF COMMUNITY IMPACTS INDICATES ALTERNATIVE 4 IS THE ONLY ALTERNATIVE THAT WOULD NOT RESULT IN ANY DECREASE IN ECONOMIC ACTIVITY ACROSS SECTORS.

IN MAKING YOUR FINAL DECISION, PLEASE CONSIDER THE BIG PICTURE: SARDINES ARE A CYCLIC RESOURCE LIKELY ENTERING A NATURAL DECLINE. ENCOURAGING INCREASED HARVEST IN A NEW FISHERY TARGETING THE LARGEST SPAWNING STOCKS AT THIS TIME IN THE CYCLE, IN THE ABSENCE OF RESEARCH ON THE RELATIONSHIP OF THOSE STOCKS TO THE SPAWNING BIOMASS, RISKS HARMING THE RESOURCE IN ADDITION TO DEVASTATING THE TRADITIONAL SARDINE INDUSTRY IN CALIFORNIA. PLEASE ADOPT ALTERNATIVE 4.

ON BEHALF OF CALIFORNIA'S WETFISH INDUSTRY, THANK YOU VERY MUCH FOR YOUR CONSIDERATION.

SINCERELY



DIANE PLESCHNER-STEELE
CALIFORNIA WETFISH PRODUCERS ASSOCIATION
DPLESCH@EARTHLINK.NET

ATTACHMENTS:

LETTER TO PFMC FROM DR. FRANK HESTER DATED OCTOBER 22, 2002
LETTER TO PFMC FROM SENATOR DIANNE FEINSTEIN DATED MARCH 10, 2003
LETTER TO PMFC FROM 12 CALIFORNIA CONGRESSIONAL REPRESENTATIVES
REPORT FROM NATIONAL FISH INSTITUTE, ENSENADA, MEXICO
NWS CLIMATE PREDICTION CENTER ENSO DIAGNOSTIC DISCUSSION, MARCH 6, 2003

October 22, 2002

Dr. Hans Radtke, Chair and
Members of the Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

PFMC FAX: (503) 820-2299

SUBJECT: Need for Pacific Sardine Research and Precautionary Management

Dear Dr. Radtke and Council Members:

I am aware that the Council has received a proposal from Pacific Northwest interests calling for elimination of the current allocation system in 2003. This is due to the presence of considerable biomass again occurring in the ocean waters off northern California to British Columbia, and in light of recent expansion of the sardine fishery in Oregon and Washington, coupled with the desire to further expand the sardine fishery in the Pacific Northwest. Such expansion and presumed increase in quota allocation and changes in current management measures may ultimately be justified, but I urge caution and some additional fact finding before any adjustments to the present management scheme are considered.

I started my career as a fishery biologist in 1960, during the final years of decline of the sardine resource. I witnessed the fishing moratorium that lasted nearly two decades, as well as the recent, episodic recovery of the resource, and have been involved in some of the technical work studying the sardine resource. I had hoped that managers had learned a lesson of caution from the history of this fishery, and certainly also from the histories of the other fisheries that are now in decline in this region.

In the case of sardines the precautionary questions that require answers are:

- ✧ What is the relationship of the fish in the northern area to the southern spawning biomass from which the current stock assessments are extrapolated?
- ✧ Do the fish in the north spawn in the northern area, and do they over-winter in the Pacific Northwest?
- ✧ If so, are they part of a single northern Mexico-southern California spawning stock?
- ✧ Do northern fish return to the southern area to spawn, where they contribute to the biomass assessment in the south and are counted in setting quotas according to the present assessment and harvest rules?
- ✧ Do these northern fish spawn to the north and are part of the same exploited stock, but are not counted in the assessment process? If so, the assessment area needs to be expanded to include them, and a new and higher quota may be justifiable.
- ✧ Or are these northern fish part of the southern spawning stock that has moved north and do not spawn? If so, are they surplus to the stock?
- ✧ Or do they spawn to the north and constitute a separate spawning stock that should be assessed separately and have separate quotas and harvest rules?

At present, the management team expresses a great deal of uncertainty with the current extrapolated stock assessment. Team members acknowledge that assessment limitations include a lack of understanding of the stock structure and migration rates; further, current fishery independent data are limited primarily to southern California. I suspect no one can answer which of the several possibilities listed above (or others) is more nearly correct.

The Council might note, however, that CalCOFI data, which come from 1951 on after the decline of the resource was well underway and the northern fisheries had disappeared, indicate that spawning did not occur north of San Francisco. So until new data are available from the northern areas, it seems prudent that the Council not consider any action other than to seek support to have the necessary research done as quickly as possible, to provide the requisite understanding of the relationship of these northern fish to the southern stock and to the spawning biomass as a whole.

It might be possible to get a quick partial answer by summarizing the occurrence of sardine eggs and larvae in recent (last five years) ichthyoplankton collections from off Oregon and Washington, and gonad indexes from specimens taken in the northern areas. How do egg and larval densities north of San Francisco and south of the Columbia River plume compare to those from the southern California to Monterey area? And what is occurring in the waters north of the Columbia River? What do the gonad data reveal?

I don't know the answer to these questions, but if it turns out that there is little evidence of spawning to the north from the ichthyoplankton data and the examination of specimen fish, then one might consider the likelihood that the fish there are part of the northern Mexico-California stock. In this case the Council should move with great caution until there is some understanding about how these large fish contribute to the spawning biomass. Do they move south to spawn at times? Or are they a senescent biomass that stays north and does not contribute to maintaining the stock?

Thank you for the opportunity to comment. I hope you will take these remarks under consideration and explore ways to obtain the necessary information about the resource before taking any action to encourage further expansion of this fishery in area or in harvest level on the mature stocks, recalling that the FMP when it was developed did not consider the possibility of a major sardine fishery in the area north of California.

Sincerely,



Dr. Frank J. Hester
Apdo. 20
Loreto, Baja California Sur
Mexico

cc: Dr. Bill Hogarth, NMFS
Mr. Rod McInnis, NMFS, SW Region
Dr. Kevin Hill, CDFG
Senator Dianne Feinstein
Congressman Duke Cunningham



United States Senate

WASHINGTON, DC 20510-0504

<http://feinstein.senate.gov>

March 10, 2003

Exhibit I.2.C
Congressional comment
March, 2003

Dr. Hans Radtke, Chair, and
Members of the Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

Dear Dr. Radtke and Council members,

I am writing to ask the Pacific Fishery Management Council to conduct thorough research on current fish stocks and use caution before authorizing further expansion of the sardine fishery in the Pacific Northwest. In the absence of knowledge about the stocks, eliminating the existing allocation system would jeopardize the sardine resource.

Pacific sardines are an historic and cultural resource, and economically valuable to the State of California. During the 1930s and early 1940s, when sardines were the largest fishery in the western hemisphere, California landed 97 percent of the U.S. Pacific sardine harvest. When the resource declined in the 1940s and collapsed in the 1950s, California's fishing industry suffered the greatest during a fishing moratorium that extended nearly 20 years. Industry-supported research and cooperation with the Department of Fish and Game fostered better understanding of the sardine resource in California, and ultimately, led to its recovery.

California's historic fishery has since come full circle, and the industry is once again dependent on sardines. As in the traditional fishery, sardines, mackerel, and squid represent more than 80 percent of California's total commercial fishery harvest today.

Since 2000, the sardine fishery has been managed under the federal Coastal Pelagic Species Fishery Management Plan. California's fishery is managed under a limited entry program, but "open access" fisheries have emerged and expanded rapidly in Oregon and Washington. However, all of the biomass estimates and harvest guidelines are still based on research conducted off southern California. To date, the stock structure and migration rates of the sardine resource in the Pacific Northwest are largely unknown.

MEMO TO: 2002 11 11 PM 00:00:00

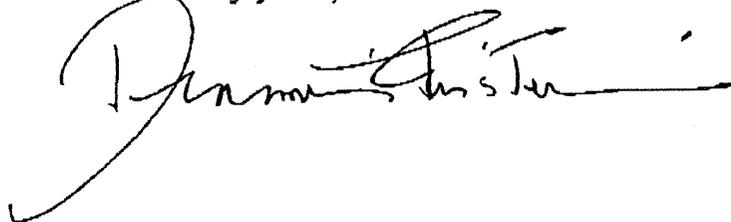
In recent years, scientists have acknowledged the uncertainties and limitations inherent in extrapolating to the Northwest stock assessments and harvest guidelines developed off California. Furthermore, they do not know the impact of increasing the harvest of the mature fish that are the target in the Pacific Northwest fishery.

The current stock assessment finds that sardine population growth appears to have leveled off. Harvest guidelines have declined for the past three years, and the ocean may have entered another cold-water cycle, causing a natural decline of the sardine resource. The historical pattern of the sardine fishery strongly suggests that this is a time to exercise caution in fishery management. This caution should be amplified by the degree of uncertainty expressed by scientists.

Please know I support the Council's recent call for a coast-wide research program on the sardine resource. Considering the facts at hand – declining harvest quotas and possibly a declining resource – I recommend that the Council obtain the necessary information about this resource before authorizing further expansion of the sardine fishery in the Pacific Northwest. In the absence of precaution, the sardine resource could crash as it did in the 1950s, and the resulting economic hardship would surely parallel the current groundfish crisis.

The sardine resource is the foundation of California's fishing industry, and it is important to learn from the lessons of the past. Thank you very much for your consideration of this request.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Dennis Christensen". The signature is written in a cursive style with a large, sweeping initial "D" and a long horizontal stroke at the end.



Congress of the United States
House of Representatives
Washington, DC 20515

February 21, 2003

Dr. Hans Radtke, Chair, and
Members of the Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

Dear Dr. Radtke and Council Members:

Pacific sardines are an historic and cultural resource, and economically valuable to the State of California. During the 1930s and early 1940s, when sardines were the largest fishery in the western hemisphere, California landed 97 percent of the U.S. Pacific sardine harvest. When the resource declined in the 1940s and collapsed in the 1950s, California's fishing industry suffered the greatest during a fishing moratorium that extended nearly 20 years. Industry-supported research and cooperation with the Department of Fish and Game fostered better understanding of the sardine resource in California, and ultimately, led to its recovery.

California's historic fishery has since come full circle, and the industry is once again dependent on sardines. As in the traditional fishery, sardines, mackerel and squid represent more than 80 percent of California's total commercial fishery harvest today.

Since 2000, the sardine fishery has been managed under the federal Coastal Pelagic Species (CPS) Fishery Management Plan (FMP). California's fishery is managed under a limited entry program, but "open access" fisheries have emerged and expanded rapidly in Oregon and Washington. However, all of the biomass estimates and harvest guidelines are still based on research conducted off southern California. To date, the stock structure and migration rates of the sardine resource in the Pacific Northwest are largely unknown.

In recent years, scientists have acknowledged the uncertainties and limitations inherent in extrapolating to the Northwest stock assessments and harvest guidelines developed off California. Furthermore, they do not know the impact of increasing the harvest of the mature fish that are the target in the Pacific Northwest fishery.

The current stock assessment finds that sardine population growth appears to have leveled off. Harvest guidelines have declined for the past three years, and the ocean may have entered another cold-water cycle, causing a natural decline of the sardine resource. The historical pattern of the sardine fishery strongly suggests that this is a time to exercise caution in fishery management. This caution should be amplified by the degree of uncertainty expressed by scientists.

We, the undersigned, support the Council's recent call for a coast-wide research program on the sardine resource. Considering the facts at hand - declining harvest quotas and possibly a declining resource - we recommend that the Council obtain the necessary information about this resource before authorizing further expansion of the sardine fishery in the Pacific Northwest. In the absence of knowledge about the stocks, eliminating the existing allocation system would encourage a derby fishery and over-capitalization, and jeopardize the sardine resource. In the absence of precaution, the sardine resource could crash as it did in the 1950s, and the resulting economic hardship would surely parallel the current groundfish crisis.

The sardine resource is the foundation of California's fishing industry, and it is important to learn from the lessons of the past. We thank you for your consideration of this request.

Sincerely,

<u>Sam Lane</u>	<u>Randy Duke Cunningham</u>
<u>George Miller</u>	<u>Lore Capps</u>
<u>Mike Wade</u>	<u>Barbara Lee</u>
<u>Tracy Lee</u>	<u>Lynn Woolsey</u>
<u>Janetta Mann</u>	<u>Don Rubin</u>
<u>Tony Lantos</u>	<u>Shoo</u>



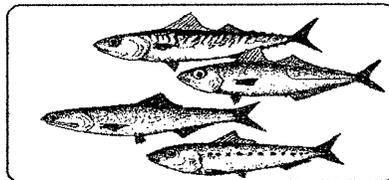
***Secretaría de Agricultura,
Ganadería, Desarrollo Rural, Pesca y
Alimentación***

Instituto Nacional de la Pesca

***Centro Regional de Investigación
Pesquera de Ensenada***

***Cámara Nacional de la Industria Pesquera y Acuícola
Delegación Baja California***

***Proyecto
Pelágicos Menores***



Boletín Anual 2003

***“Análisis de la Pesquería de Pelágicos Menores
de la Costa Occidental de B.C.
Durante la Temporada del 2002”***

Por:

***Walterio García Franco
Fco. Javier Sánchez Ruiz***

***Ensenada, B.C.
Marzo del 2003***

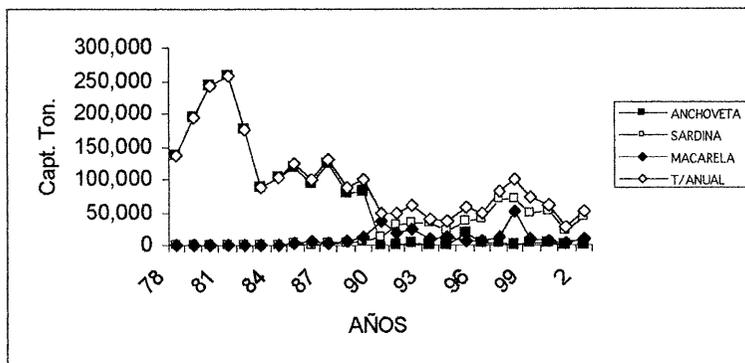


Figura 2.- Relación de capturas anuales de pelágicos menores de 1978 al 2002 en la costa occidental de B.C.

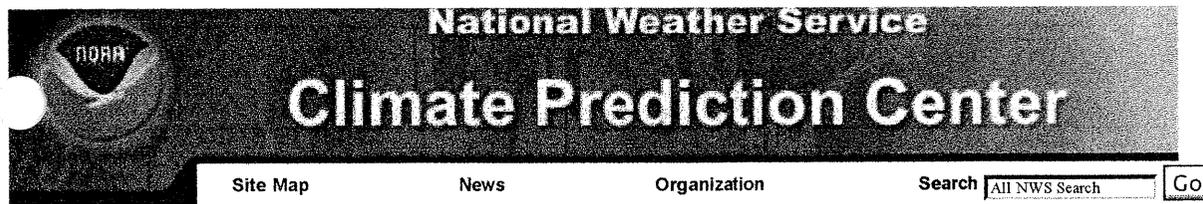
Cuadro 2.- Capturas anuales de pelágicos menores documentadas en los últimos 25 años en la costa occidental de B.C.

AÑOS	ANCHOVETA	SARDINA	MACARELA	T/ANUAL	No BARCOS
78	135,036	0	0	135,036	60
79	192,476	0	0	192,476	51
80	242,907	0	0	242,907	46
81	258,745	0	0	258,745	58
82	174,634	0	0	174,634	50
83	87,429	274	135	87,838	40
84	102,931	0	128	103,059	41
85	117,192	3,722	2,582	123,496	38
86	93,547	243	4,883	98,673	27
87	124,482	2,432	2,082	128,996	21
88	79,495	2,035	4,884	86,414	38
89	81,810	6,224	13,387	101,421	37
90	99	11,375	35,767	47,241	19
91	831	31,391	17,450	49,672	18
92	2,324	34,568	24,345	61,237	17
93	284	32,045	7,741	40,070	17
94	875	20,877	13,319	35,071	14
95	17,772	35,396	4,821	57,996	7
96	4,168	39,065	5,604	48,884	7
97	1,823	68,439	12,477	82,828	14
98	972	68,439	50,726	100,016	19
99	3,482	47,812	10,168	73,024	10
00	1,562	51,172	7,182	59,917	15
01	76	22,246	4,078	26,400	11
02	0	43,437	7,962	51,400	11

Distribución de las Capturas

Con relación a la distribución de las capturas en la zona de pesca comercial de pelágicos menores en la costa occidental de Baja California durante la temporada del 2002, se destaca que el 71.1 % de las capturas registradas, provinieron del área II, que

se localiza de Pta. Salsipuedes a Pta. Santo Tomas, el 25.4 % en el área I, que comprende desde la frontera con los EUA a Pta. Salsipuedes, el 3.4 % en el área III ubicada entre Pta. Santo Tomas a Pta. Colonet y el 0.1 % en el



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EL NIÑO/SOUTHERN OSCILLATION (ENSO) DIAGNOSTIC DISCUSSION

issued by

CLIMATE PREDICTION CENTER/NCEP

March 6, 2003

Warm episode (El Niño) conditions continued to weaken during February 2003, as SST anomalies decreased throughout the eastern and central equatorial Pacific ([Fig. 1](#)). Since December, SST anomalies have decreased by more than 2°C in the eastern equatorial Pacific between 130°W and the South American coast ([Fig. 1](#), bottom panel). This decrease has resulted in near normal or slightly below normal SSTs in the region east of 120°W during February ([Fig. 1](#), middle panel). Since December there has also been a steady decrease in the magnitude and extent of the positive subsurface temperature anomalies, indicating a depletion of the excess warmth in the upper ocean of the equatorial Pacific ([Fig. 2](#)). This evolution is typical during the decay phases of warm episodes.

In spite of these trends, significant positive SST anomalies in the central equatorial Pacific continued during February 2003, with anomalies greater than +1°C extending from 170°E to 150°W. In addition, enhanced precipitation and cloudiness were found over this region and some atmospheric circulation indices, such as the SOI, continued to reflect warm (El Niño) episode conditions.

Consistent with current conditions and recent observed trends, most coupled model and statistical model forecasts indicate that El Niño conditions will continue to weaken through March 2003. Thereafter, the consensus forecast is for near-normal conditions during April-October 2003. However, there is a wide spread amongst the individual forecasts, with some indicating the possibility of continued weak El Niño conditions and others indicating the development of La Niña conditions during the last half of 2003. The recent cooling of the upper ocean (surface and subsurface) in the eastern equatorial Pacific supports the possibility of the development of La Niña later this year.

This discussion is a consolidated effort of NOAA and its funded

institutions. Weekly updates for SST, 850-hPa wind, OLR and features of the equatorial subsurface temperature structure are available on the Climate Prediction Center web page at <http://www.cpc.ncep.noaa.gov> ([Weekly Update](#)). Forecasts for the evolution of El Niño/La Niña are updated monthly in CPC's Climate Diagnostics Bulletin [Forecast Forum](#). To receive an e-mail notification when updated ENSO Diagnostic Discussions are released please send your e-mail address to:

Climate Prediction Center
National Centers for Environmental Prediction
NOAA/National Weather Service
Camp Springs, MD 20746-4304
e-mail: vernon.kousky@noaa.gov

NOAA/ National Weather Service
National Centers for Environmental Prediction
Climate Prediction Center
5200 Auth Road
Camp Springs, Maryland 20746
Climate Prediction Center Web Team
Page last modified: December 12, 2002

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TELEPHONE: (408) 753-5100
FAX: (408) 753-5111



DEL MAR SEAFOODS, INC.

P.O. BOX 5969 SALINAS CA 93915

Processors and Distributors of Monterey Bay Squid

Dr. Hans Radtke, Chair and Council Members
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

April 7, 2003

Dear Dr. Radtke & Council Members:

Del Mar Seafoods is located in Salinas and Watsonville, California. We are one of the three processors for Pacific Sardine in the Monterey area. Our company employs approximately 200 people and we process a major portion of the sardines landed into the Monterey area.

Del Mar Seafoods supports either Option 3 or Option 5 for an allocation scheme for the 2003 and 2004 seasons. Status quo and Option 4 will not avoid premature shut-downs in the Monterey area and could force California fishermen and processors to remain idle during the month of August.

Thank you for your consideration.

Sincerely,

Joe Cappuccio, President
Del Mar Seafoods

Subject: [Fwd: Allocation of the Sardine Resource]
From: Donald McIsaac <donald.mcisaac@noaa.gov>
Date: Tue, 25 Mar 2003 08:23:38 -0800

Public Comment on G.2

----- Original Message -----

Subject: Allocation of the Sardine Resource
Date: Tue, 25 Mar 2003 00:34:40 EST
From: <HFBJOHNG@aol.com>
To: donald.mcisaac@noaa.gov
CC: dplesch@earthlink.net

Dr. Hans Radtke, Chair, Dr. Don McIsaac, Executive Director and Members of the Pacific Fishery Management Council

Dear Sirs, I am a processor in Southern California who depends on all pelagic species available to us to process and sell. In recent years the squid fishery has been good, however, this season the fishery is down and as a processor/boat we need the capability to put up different commodities to survive. By limiting the amount of sardines to California by shifting quotas to Oregon and Washington, established shore based facilities, like mine, are limited on possibilities for revenue. I realize that Oregon and Washington processors are having hard economic times, but we have more of a hardship because of the population source, the tax base on the property and the demand for off loading space. Oregon and Washington need more research on the fishery before you expand their quota.

Thank you for your consideration.

John W. Gingerich
Hueneme Fish Processors, Inc.

Dr. Hans Radtke, Chair
Dr. Don Mcisaac, Executive Director
And members of the Pacific
Fishery Management council
7700 NE Ambassador Place
Suite 200
Portland, Oregon

RECEIVED

MAR 28 2003

PFMC

March 27, 2003

Subject: REALLOCATION OF SARDINE RESOURCE

Dear Dr. Radtke, Dr. Mcisaac and Council Members-

My name is Sal Tringali and I am Vice President of Monterey Fish Company in Monterey California. I would like to clarify our position on the reallocation of the Sardine quota. In 1997 we constructed a new six million-dollar canning facility in Salinas California for the main purpose of canning Sardines and Squid. We also built a new 88-foot modern purseine vessel that could travel a long distance carrying 100 tons of Sardines in six refrigerated wells. This vessel was built to support the new Cannery on Sardines especially when the smaller vessels are fishing for squid, which brings a much higher price and is more profitable for smaller vessels. The cost of this vessel was One and a half million dollars. We made these capitol investments based on a limited entry coastal pelagic fishery and a 33% guaranteed quota for Northern California. When Oregon and Washington started fishing a few years ago we did not see a problem because we were under the impression that if the overall quota dropped below a certain level Oregon and Washington would be cut off. We are now very concerned with moving the Northern boundary further North to Point Arena where 33% of the overall quota would be guaranteed to the Northwest. And if that overall quota should be substantially reduced we in Monterey would not have much fish to harvest if we were combined with Southern California. Monterey Fish Company has been in business since 1941 and employs 400 people in our freezing and canning plant. We also support Seven purseine vessels employing a total of forty-five people.

We are all for maintaining a fishery in the Northwest as long as the stocks are healthy but feel we need to do the research in the Northwest to determine where those fish go and if they are a separate biomass. We are not seeing the fish in the Monterey area that we saw Five years ago. Maybe this last El Nino had an effect or the stocks could just be declining. Our position is to support alternative 4, moving the automatic reallocation date to September 1, and opening the harvest coast wide. This seems like the simplest solution to off set economic impacts in the short term. While research is underway to better understand stock structure and migration of the Sardine resource.

Sincerely yours,



Sal M. Tringali
Vice president -M.F.C

RECEIVED

MAR 31 2003

PFMC

March 21, 2003

Dr Hans Radke. Dr. Don McIssac
Members of the Pacific Fisheries Management Council

Re: Sardine Allocation

The sardine fishery is very important to Southern California. At times we are fishing hard to fill seasonal orders At other times it is common to be given a squid or mackerel order - when nothing is available (which is exactly the situation this season) then we are able to put sardines on board keeping the boat and shore based crew running.

We need steady supply to maintain the markets we have worked so hard to build these last few years.

We can support moving the reallocation date from October to September to give the Pacific Northwest more fishing opportunity.

We cannot support the other proposed alternatives.

Many Monterey boats are able to move north and do participate in both fisheries. The southern California fleet by and large does not have this opportunity.

Fishermen see changes in the ocean condition. Water temperature is dropping and it is likely that the quota will be reduced.

We cannot afford to loose this quota which we have worked so hard to get.

As stake holders in the Sardine fishery we have experienced the restrictions of a complete sardine moratorium and the difficulty of the restricted sardine fishery of the 1980's and early 1990's. We have worked with the scientific community and California Department of Fish and Game to get the quota opened.

We encourage research in the Northwest in order to increase the quota, in the same manner as California fishermen have done.

Sincerely,

Sony Mather Boat Operator F/V MARY LOUISE
Genaro Ruiz

Eduardo Medrang Arch

Fido Phau

Attilio Di Biello

Nick Vasilaris
Jim Deeb

Jorge CAVERO

Neil Meloy

RECEIVED

MAR 31 2003

PFMC

March 21, 2003

Dr Hans Radke.
Dr. Don McIssac
Members of the Pacific Fisheries Management Council

Re: Sardine Allocation

As stake holders in the Sardine fishery we have experienced the restrictions of a complete sardine moratorium and the difficulty of the restricted sardine fishery of the 1980's and early 1990's. We have worked with the scientific community and California Department of Fish and Game to get the quota opened.

Access to this fishery is CRUCIAL to Southern California. It is common to be given a squid or mackerel order - when nothing is available (which is exactly the situation this season) then we are able to put sardines on board keeping the boat and shore based crew running.

We need steady supply to maintain the markets we have worked so hard to build these last few years.

We can support moving the reallocation date from October to September to give the Pacific Northwest more fishing opportunity.
We cannot support the other proposed alternatives.

Many Monterey boats are able to move north and do participate in both fisheries. The southern California fleet by and large does not have this opportunity.

Fishermen see changes in the ocean condition. Water temperature is dropping and it is likely that the quota will be reduced.
We cannot afford to loose this quota which we have worked so hard to get.

We encourage research in the Northwest in order to increase the quota, in the same manner as California fishermen have done.

Sincerely,



F/V "MARIA T"

RECEIVED

MAR 31 2003

PFMC

March 21, 2003

Dr Hans Radke.
Dr. Don McIssac
Members of the Pacific Fisheries Management Council

Re: Sardine Allocation

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Sincerely,


ENRIQUE MEZA
ROBERTO PERALTA GARATE



Capt. John J. Jara
F/V MIDNIGHT HOUR

RECEIVED

MAR 10 2003

March 7, 2003

PFMC

Dear Chairman Radtke and Members of the Council;

My name is Charlie Most. I live in Westport, Wa. And own/operate the 54 foot purse seine/crabber Santa Maria out of Westport. I would prefer to present my ideas in person, however, with our second child due any day now, it would be "politically incorrect" for me to be too far from home at the wrong time. I plan to continue fishing in the developing sardine fishery off the Washington coast, however, I am concerned there will be very little quota left to catch when our local processors are able to process them, in August thru October.

The success of developing quality sardine markets depends on catching quality fish with high oil content. This occurs in August, September and October. An example of this, from Pacific Fisherman Yearbook 1937, page 247, says, "The rapid increase in the fatness of the fish is shown by the fact that on August 6, the yield was 14.8 gallons per ton. While on August 31, the yield was 54.3 gallons; remaining at about 54 gallons until fishing was entirely suspended out of Grays Harbor on September 23. The average yield of oil for the season was 29.5 gallons per ton."

Over the past three years the southern district has underutilized their quota on the average of 67,000 tons. Last year, in 2002, 18,500 tons were left unharvested, while the northern district was shut down for ten days, at a time when the fish had the highest value to the industry.

The southern district is not harvesting their quota. The coastal communities of Washington and Oregon could certainly use the economic boost that harvesting those underutilized sardines would give them. I would like to see more fish reallocated to the northern district for Aug., Sept., and October.

Thank you,
Charlie Most
F/V Santa Maria
Westport, Wa.

M. Reid Muntz (SP)

Exhibit 6.2
Public Comment
April 2003

Mr. Chairman and members of the Council,

Ladies & Gentlemen:

My name is John Chiang. I am VP/International Sales for West Bay Marketing, Inc. West Bay has a sardine plant located at Port of Astoria, Oregon. West Bay is not only a processor, but also a buyer of sardine processed by other plants, export marketer, and an end user of Pacific Sardine from Baja California to the Great Northwest. West Bay and I have extensive experience in handling Pacific Sardine from fishing boats to end-users. I believe my comments are the most qualified and integrated among all since most only represent the view of one of the followings, fishermen, processors, logistics operators, exporters, importers, traders, or customers. Before the Council, Coastal Pelagic Species Management Team (CPSMT), and Coastal Pelagic Species Advisory Subpanel deciding on any of the alternatives, they should know their decisions are very important and could greatly impact anyone involving in Sardine business. It is strongly suggest that any decision should be decided rationally with consideration of all aspects including but not limited to Economical, Social Structural, Environmental.

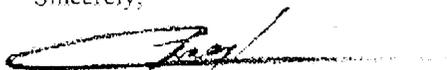
Economical Aspects: California Sardine average size range from 30 - 60 grams has only canning and feed markets, the lowest market in value, have been selling at an average of \$190/MT FOB or \$290/MT CNF Asia for canning market. It is clearly that the natural resources, fishermen and processors are subsidizing foreign canneries by penalizing themselves. Not only fishermen and processors cannot survive at \$190/MT FOB level, but natural resources are wasted to subsidizing foreign entities. Even Mexican sardine are selling at higher prices. Meanwhile, Oregon Sardine size range from 100 - 250 grams, stronger and fattier fish, are selling at much higher price levels from minimum of \$550 to \$750/MT or higher for the preferred sizes. Scraped fish can salvage for Crab bait market @ \$450/MT FOB. Tuna bait, fresh sushi, further processing, and domestic crab baits are the target markets for Oregon Sardine. More higher value applications are undergone developing. This has clearly proven there is a big mistake in the existing Fishery Management Plan (FMP). The new FMP should prioritize on Oregon Sardine. It is ridiculous to penalize the winner (the north) and subsidize the loser (the south). Instead of 33% north, 66% south, it should be the opposite, 66% to the north and 33% to the south.

Social Structural Aspects: Oregon Sardine processors create more jobs and more money to boats per ton, which means Oregon Sardine is much better utilized sardine than anywhere. Oregon Sardine also produced and processed in the communities which generally rely on more job opportunities while California sardine doesn't really have any influential impact to the local community/economy.

Environmental Aspects: Since Oregon Sardine has the highest value and is best utilized than anywhere in the world, why let the wasting resources California Sardine has better allocation. We are talking one ton Oregon Sardine harvested equals to three tons California. One ton profiting Oregon Sardine and three tons losing California do not take much to figure out. If the sardine are the same bio mass whether south or north, why the existing FMP allows the small sardine 30 - 60 grams to be harvested three times in tonnage more than the big sardine? If we count the number fish, taking 200 grams as an average for big fish divided by 50 grams for small fish, this three times number will magnify to 12 times more number of small fish than big fish. Let's stop penalize the winner.

West Bay markets sardine from Mexico to Washington and we have documents supporting our points. Therefore, I suggest allocation percentages of 66% to the north, 33% to the south; or coastwide allocation and let the market determine what fish has more demand (free enterprise).

Sincerely,



John Chiang, VP/International Sales, West Bay Marketing, Inc.



G. COASTAL Pelagic
2. SARDOINE ALLOCATION

April 9, 2003

CITY OF ASTORIA
OFFICE OF THE MAYOR

Mr. Donald McIsaac
Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland OR 97220-1384

RE: Northern Sardine Quota

Dear Mr. McIsaac:

I write on behalf of the City of Astoria to support fully and without reservation the efforts to expand the northern quota for the Pacific Sardine Fishery for 2003.

The resurgence of the sardine fishery off the coast of Oregon has been tremendous for the Astoria area. The impact on seasonable employment is obvious, but more subtle but equally important benefits have been increased investment in plant and facilities, additional revenue for local government, and increased activity for businesses which support the fishermen and processors, such as fuel, gear and supplies, vessel maintenance and repair, and even housing. As a local businessman myself, I know that any increase in economic activity, particularly natural resource harvest and production, benefits the entire business community and all of the people who live in this area.

Although Astoria is taking steps to transition from its long dependence on natural resources, the resurgent sardine fishery assists even that effort. A favorite stop for our local riverfront trolley is at one of the sardine processing facilities. We have a number of processors of sardines and their investment has helped to rejuvenate Astoria's waterfront. The City of Astoria hopes this can continue.

On behalf of the City of Astoria, I strongly recommend an increase in the northern portion of the Pacific Sardine harvest quota for 2003. This is an important issue for Astoria and I hope that the Council will take the steps necessary to help our local economy. Please call me if you have any questions.

Sincerely,

THE CITY OF ASTORIA

Willis L. Van Dusen
Mayor

WLVD:jl

cc: Rodney R. McInnis, Assistant Administrator
National Marine Fishery Service
Southwest Region
501 W. Ocean Blvd, Suite 4200
Long Beach CA 90802-4213

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ERIC FRUITS, PH.D.
SENIOR ECONOMIST

EMAIL • FRUITS@PORTLAND.ECONW.COM

April 9, 2003

*Presented by
Eric Fruits*

Dr. Hans Radtke, Chairman
and Council Members
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

Re: Sardine Allocation Alternatives—Economic Impacts on Oregon and Washington

Dear Dr. Radtke and Council Members:

Astoria Holdings, Inc. asked ECONorthwest to estimate the economic impacts on the Oregon and Washington economies associated with the allocation alternatives under consideration by the Council. Using 2001 and 2002 production data supplied by Astoria Holdings, publicly available data, and a widely-used regional input-output model, ECONorthwest estimates the following annual economic impacts, summarized on Table 1 (attached):

- Alternative 5 has the greatest positive economic impacts on Oregon and Washington, adding over 149 jobs and nearly \$10.7 million annually to the states' economies relative to the status quo. Alternative 5 (along with Alternative 3) present the smallest probability of an early closure of the Oregon and Washington fishery.
- Alternative 4 will almost certainly result in an early closure of the Northern fishery by as much as six weeks. If the fishery closes in the first week in August, as many as 164 jobs in Oregon and Washington will be lost. These job losses will result in a loss of \$11.8 million in wages, business income and other income.
- The Coastal Pelagic Species Management Team (CPSMT) forecasts are entirely unreliable for allocation policy purposes. For the current year, the CPSMT forecast overestimates the Southern California harvest by nearly 30 percent and understates the Northern California harvest by over 200 percent.
- Southern California will unlikely see any negative impacts from any of the alternatives this year. In the first three months of this year, the Southern California

sardine harvest is well under that projected by CPSMT. If this trend continues throughout the year, California will not harvest its entire allocation and none of the alternatives will result in an early closure of the California fisheries.

ALTERNATIVE 5 HAS THE GREATEST POSITIVE ECONOMIC IMPACTS ON OREGON AND WASHINGTON

Alternative 5 has the greatest positive economic impact on Oregon and Washington. Relative to the status quo, Alternative 5 adds 149 jobs and \$10.7 million to the states' economies. The benefits are derived from moving the north-south line to Pt. Arena and from opening the harvest guideline coastwide on September 1. With the line drawn at Pt. Arena, the Oregon and Washington fishery face a lower chance of closing early. The September 1 coastwide harvest guideline provides flexibility in the face of Oregon and Washington's uncertain weather in September.

ALTERNATIVE 4 WILL RESULT IN AN EARLY CLOSURE OF OREGON, WASHINGTON, AND NORTHERN CALIFORNIA FISHERIES

Both Alternative 4 and the status quo almost certainly guarantee an early closure of the Northern California, Oregon and Washington fisheries just prior to their most productive months. Like the status quo, Alternative 4 divides North and South at Pt. Piedras Blancas, and provides the Northern fishery an initial allocation of 36,600 metric tons. Already Northern California has harvested 5,075 metric tons—three times what was forecast by CPSMT (March 2003). This leaves 31,525 metric tons of allocation available for Northern California, Oregon and Washington until September 1. This means that the fishery will close 53 days after Oregon and Washington begin harvesting, as shown in Table 1. Depending on when the season begins in Oregon and Washington—usually between June 1 and June 15—Alternative 4 will close the Northern fishery by as much as six weeks early (between July 23 and August 6).

Table 1: Alternative 4—Early Closure of Northern Fishery (No. CA, OR, WA)

Harvest Guideline	110,908 m/t
Multiplied by: Initial Northern Allocation (No. CA, OR, WA)	33 %
Equals: Northern Allocation (No. CA, OR, WA)	36,600 m/t
Less: No. CA Harvest To Date	5,075 m/t
Equals: Amount Remaining Until Reallocation on 01-Sep	31,525 m/t
OR & WA Forecast Harvest	600 m/t per day
Number of Days Until Initial Allocation is Exhausted	53

Traditionally, August is the most productive month in the Northern fishery. August 2002 accounted for 40 percent of Oregon and Washington annual harvest and 20 percent of Northern California's. Closing the fishery at the end of July or beginning of August will have a substantial negative impact on employment in Northern California, Oregon and Washington. Because the weather worsens in September, the Oregon and Washington fishery likely will have only two weeks to fish after the September 1 reallocation. Alternative 4's December 1 reallocation has no effect on the Oregon and Washington fishery.

EARLY CLOSURE IN THE FIRST WEEK OF AUGUST WILL HAVE SUBSTANTIAL JOB AND INCOME IMPACTS ON THE OREGON AND WASHINGTON ECONOMIES

If the fishery closes in the first week in August rather than continuing through the middle of September (as expected under the status quo and Alternative 4), 164 jobs will be lost. These job losses will result in a loss of \$11.8 million in wages, business income and other income.

It is well known that Oregon and Washington have the highest unemployment in the country. At 7.5 percent, Oregon has the highest unemployment in the country; at 6.6 percent, Washington is exceeded only by Alaska and Oregon. The fishing industry is a vital component of the Northwest's economy. It is an export based industry—it brings outside dollars into the region. Moreover, because much of the harvest is sold overseas, sardine fisheries add to the U.S. trade balance and the national economy.

The processing and export of frozen sardines directly affects the Oregon and Washington economies through the processors' creation of jobs. In addition, the regional commercial fishing industry and others indirectly benefit by catching sardines or providing other intermediate goods and services to seafood processors. The direct and indirect increases in employment and income enhance overall economy purchasing power, thereby inducing further consumption- and investment-driven stimulus.

The economic modeling framework that best captures these direct, indirect, and induced effects is called input-output modeling. Input-output models provide an empirical representation of the economy and its inter-sectoral relationships, enabling the researcher to trace out the economic impacts of a change in the demand for goods and services.

ECONorthwest used a specially constructed, input-output model of the Oregon and Washington economy to trace the effects associated each of the alternatives under consideration. Specifically, ECONorthwest used the IMPLAN modeling software, modified specially for this application. The details of the modeling process and the underlying assumptions are described in report accompanying my testimony in March 2003 (Exhibit I.2.c).

The results of the modeling process indicate that every 10,000 metric tons of sardines processed in Oregon and Washington is associated with 108 jobs and \$7.7 million in wages, business income, and other income. These job and dollar impacts are felt most in the communities that depend on sardine fishing—Astoria, Warrenton, Ilwaco, Westport, Salem, Newport, Woodland, and Bellingham. Some of these communities have unemployment rates over and above Oregon and Washington's already-high unemployment rates.

SOUTHERN CALIFORNIA WOULD UNLIKELY FACE EARLY CLOSURE UNDER ANY OF THE ALTERNATIVES

To date, Southern California has harvested about 71 percent what CPSMT forecast the fishery would catch through March 2003. If Southern California continues this trend of harvesting well under what was forecast, then the none of the alternatives will result in an early closure of the Southern California fishery and even the "worst" alternatives for Southern California will impose non-binding constraints.

Comments by Dr. Radtke and Mr. Fougner indicated the Council's desire to review pricing and economic data for all regions in order to evaluate economic impacts. As the Council is surely aware, processor and financial and economic data is not readily available to the public. CPSMT measured the economic impact of each of the alternatives using a survey of west coast

processors. However, as noted in the CPSAS comments (March 2003), there is some doubt about the reliability of the data provided by the Southern California processors.

The CPSMT Report (March 2003) projected the Southern California fishery would harvest 20,675 metric tons in the first three months of this year. According to the most recent report, the California fishery has harvested only 14,694 metric tons, or 71 percent of CPSMT's forecast.

The weakness of the California fishery relative to the Oregon and Washington fisheries is also reflected in California's low and declining prices paid ex vessel. Figure 1 (attached) shows that California's sardine prices are reaching five-year lows (approximately \$85 per metric ton) while Oregon and Washington's prices have been rising (to \$122 per metric ton in 2002).

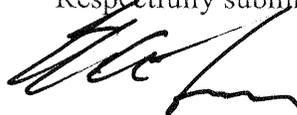
The decrease in price combined with a decrease in quantity caught and sold indicate that the demand for California sardines is declining. Although I have not investigated the cause for the decline, shrinking Australian demand for U.S. sardines as well as decreases and/or variability in quality (e.g., size) have been cited as factors. For example the California Department of Fish and Game has stated the following.

Apparently the sardine fishery in Australia has expanded with a much larger quota this year ... resulting in fewer U.S. sardine imports. (Leanne Laughlin, California CPS landings update for December, January 8, 2003)

Lack of fish, no orders and a wide range of fish sizes (some processors prefer a uniform size) when they were caught were given as causes for the decline in landings. (Leanne Laughlin, Coastal Pelagic Species landings for Feb 2003, March 10, 2003)

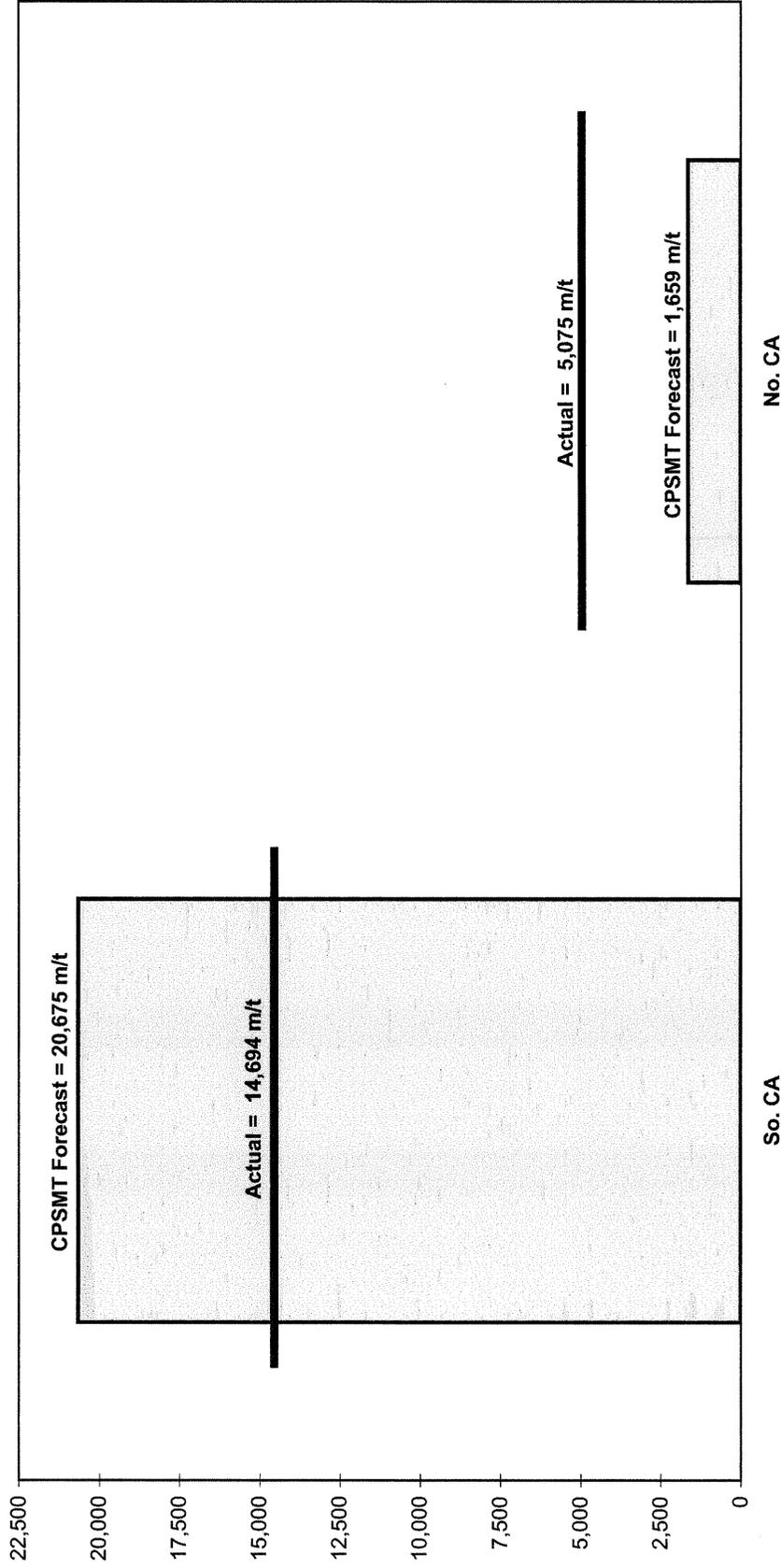
Lack of fish, poor fish quality, and poor market demand limited fishing effort. (Leanne Laughlin, CPS Landings Update for March, April 4, 2003)

Respectfully submitted,



Eric Fruits

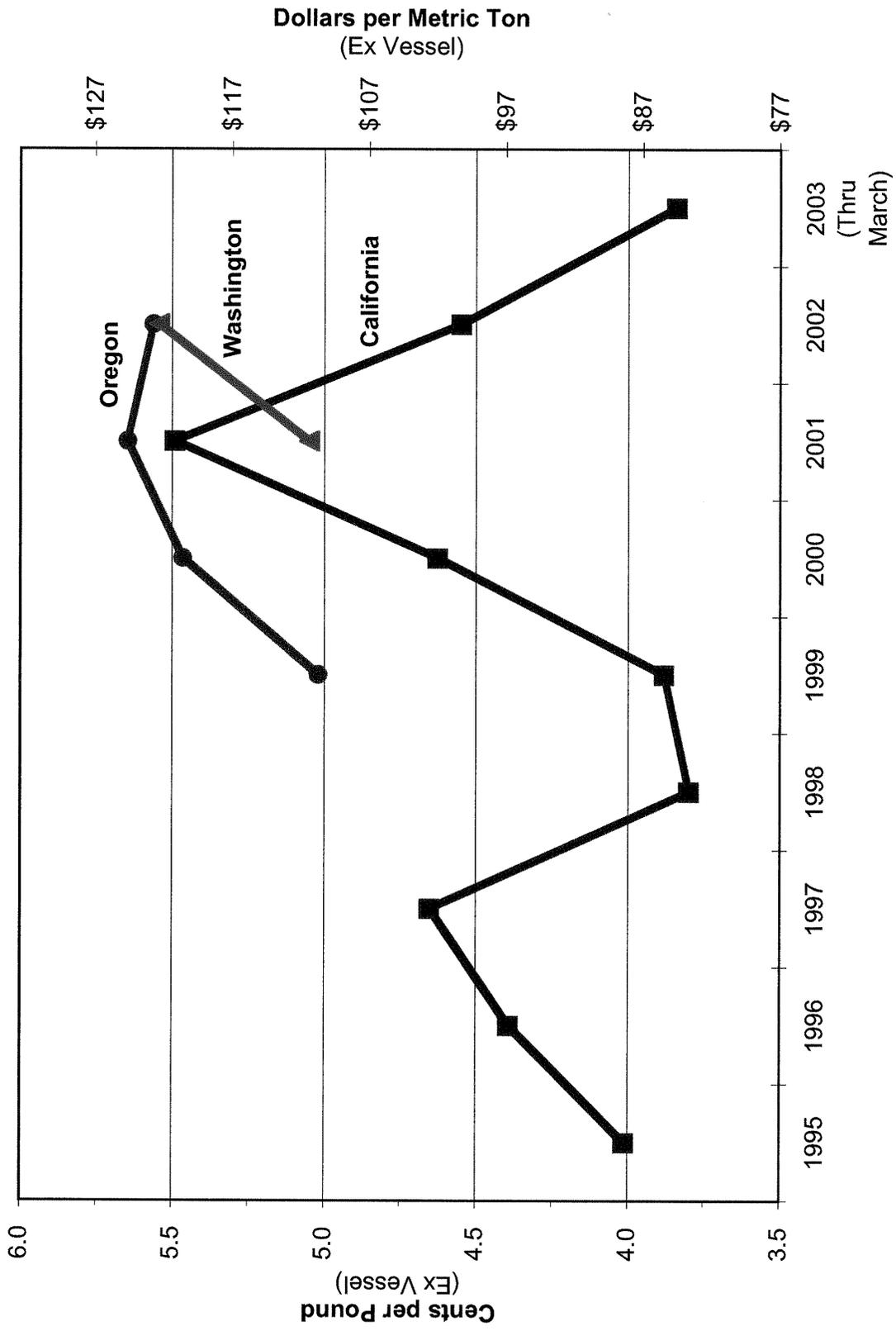
Figure 1: Pacific Sardine Harvest, Forecast vs. Actual (January – March 2003)



Source: PacFIN, CPSMT Report (March 2003)

Prepared by: ECONorthwest

Figure 2: Pacific Sardine Prices 1995-2003, Ex Vessel (Cents per Pound and Dollars per Metric Ton)



Source: PacFIN, CDFG All Species Report

Prepared by: ECONorthwest

COASTAL PELAGIC SPECIES STOCK ASSESSMENT TERMS OF REFERENCE

Situation: In March 2003, the Scientific and Statistical Committee (SSC) presented draft Terms of Reference for a coastal pelagic species (CPS) stock assessment review (STAR) process. The Council preliminarily adopted the Terms of Reference pending CPS Management Team and CPS Advisory Subpanel review.

At this meeting, the Management Team and Advisory Subpanel will report to the Council on the Terms of Reference. The Council is scheduled to consider final adoption of the Terms of Reference.

Per the SSC's March 2003 report, timing of the STAR workshop faces two constraints: use of mackerel assessments at June Council meetings and use of sardine assessments at November Council meetings. The SSC considered two proposals for the timing of the STAR workshop: September 2003 and May 2004. The SSC recommended May 2004, advantages of a May 2004 workshop include having results from both mackerel and sardine assessments available in time for the management process in 2004.

Council Action:

1. Consider approving Terms of Reference.

Reference Materials:

1. Exhibit I.3, Attachment 1 – Preliminary CPS STAR Terms of Reference.

Agenda Order:

- a. Agendum Overview
- b. Reports and Comments of Advisory Bodies
- c. Public Comment
- d. **Council Action:** Approve Terms of Reference

Dan Waldeck

PFMC
03/21/03

PRELIMINARY TERMS OF REFERENCE FOR A COASTAL PELAGIC SPECIES STOCK ASSESSMENT REVIEW PROCESS

Introduction

The purpose of this document is to help the Council family and others understand the coastal pelagic stock assessment review process (STAR). Parties involved are the National Marine Fisheries Service (NMFS); state agencies; the Council and its advisors, including the Scientific and Statistical Committee (SSC), Coastal Pelagic Species Management Team (CPSMT), Coastal Pelagic Species Advisory Subpanel (CPSAS), Council staff; and interested persons. The STAR process is a key element in an overall process designed to make timely use of new fishery and survey data, to analyze and understand these data as completely as possible, to provide opportunity for public comment, and to assure the results are as accurate and error-free as possible. The STAR process is designed to assist in balancing these somewhat conflicting goals of timeliness, completeness and openness.

Stock assessments for Pacific sardine and Pacific mackerel are conducted annually to assess the abundance, trends and appropriate harvest levels for these species.^{1/} Assessments use statistical population models to analyze and integrate a combination of survey, fishery, and biological data. At its November 2001 meeting, the SSC reported that

The Coastal Pelagic Species Management Team (CPSMT) has recommended a peer review process for the coastal pelagic species similar to the groundfish STAR process. The CPSMT suggests that full sardine and Pacific mackerel stock assessments and reviews be conducted on a triennial cycle, with a less formal review by the CPSMT and SSC during interim years. Full stock assessment reports would be developed and distributed following each STAR Panel review. Details from interim-year assessments could be documented in executive summaries similar to the one produced for this year's (2001) sardine assessment. As entirely new assessments are developed, a STAR Panel would be convened to review the assessment prior to implementation of results for setting harvest guidelines. The SSC supports the CPSMT's proposal.

At its June 2002 meeting, the SSC further noted that the methodology on which the 2002 Pacific mackerel stock assessment was based...

is not fully documented in the Stock Assessment and Fishery Evaluation (SAFE) report precluding a detailed review by the SSC at this time. The SSC recommends the methodology be reviewed in detail by a stock assessment review panel in 2003. The CPS subcommittee of the SSC will develop Terms of Reference for such a review if it is supported and funded. The timing of any review needs to be coordinated with the timing of the groundfish Stock Assessment Review (STAR) Panels for 2003.

Clearly there is a need to develop and implement a stock assessment and review (STAR) process for coastal pelagic species similar to that for groundfish. The first and most pressing candidates are Pacific sardine and Pacific mackerel.

1/ Stock assessments are conducted for species "actively" managed under the Coastal Pelagic Species Fishery Management Plan (FMP). That is, fisheries for Pacific sardine and Pacific mackerel are actively managed via annual harvest guidelines and management specifications, which are based on current stock assessment information. Jack mackerel, Northern anchovy, and market squid are "monitored" species under the FMP. Annual landings of these species are monitored and reported in the annual Stock Assessment and Fishery Evaluation (SAFE) report, but harvest guidelines are not set for them.

Pacific sardine is now, along with Pacific whiting, the most abundant fish resource off the West Coast; at one time sardine was the largest single-species fishery in the world, yet the research program for supporting sardine assessment is seriously under funded and under reviewed. The current fishery independent surveys only provide indices of sardine egg abundance and daily egg production. The aerial fish spotter index (used as a measure of sardine recruitment) only covers the nearshore areas of the southern California Bight and, more recently, spotter effort has been at negligible levels as spotter pilots have focused on other non-CPS fisheries. The adult parameters used in recent biomass estimates are computed on the basis of biological data collected in 1994, at a time when the population was one-tenth of the 2002 biomass. The data sources for sardine are limited to geographic areas off Baja California, Mexico, and the State of California (particularly the area from San Diego to Monterey Bay). A migration model parameterized with historical estimates of sardine migration rates is used to extrapolate the stock assessment to the northern areas of the sardine distribution. With the recent expansion of the sardine population off Oregon, Washington, and British Columbia, there is an urgent need to incorporate fishery-dependent data for northern areas into the stock assessment and to initiate resource surveys to establish a fishery-independent time series for those areas.

The same can be said for Pacific mackerel. The 2002 harvest guideline (HG) was based on the same stock assessment methodology and harvest control rule used in 2001, with the addition of one additional year's data. Compared with the 2001 assessment, the biomass time series for the 2002 assessment was 14% lower over the last decade, and the July 1, 2001 biomass, a projection in the 2001 assessment, 30% lower. The methodology on which this (current) assessment is based is not fully documented in the SAFE report precluding a detailed review by the SSC. Therefore, in 2002 the SSC recommended (June 2002 minutes) that the methodology be reviewed in detail by a stock assessment review panel as soon as possible.

STAR Goals and Objectives

The goals and objectives for the CPS assessment and review process^{1/} are:

- a. Ensure that CPS stock assessments provide the kinds and quality of information required by all members of the Council family.
- b. Satisfy the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and other legal requirements.
- c. Provide a well-defined, Council oriented process that helps make CPS stock assessments the "best available" scientific information and facilitates use of the information by the Council. In this context, "well-defined" means with a detailed calendar, explicit responsibilities for all participants, and specified outcomes and reports.
- d. Emphasize external, independent review of CPS stock assessment work.
- e. Increase understanding and acceptance of CPS stock assessment and review work by all members of the Council family.
- f. Identify research needed to improve assessments, reviews and fishery management in the future.
- g. Use assessment and review resources effectively and efficiently.

Shared Responsibilities

2/ In this document, the term "stock assessment" includes activities, analyses, and management recommendations, beginning with data collection and continuing through to the development of management recommendations by the Coastal Pelagic Species Management Team and information presented to the Council as a basis for management decisions.

All parties have a stake in assuring adequate technical review of stock assessments. NMFS must determine that the best scientific advice has been used when it approves fishery management recommendations made by the Council. The Council uses advice from the SSC to determine whether the information on which it will base its recommendation is the "best available" scientific advice. Fishery managers and scientists providing technical documents to the Council for use in management need to ensure the work is technically correct. Program reviews, in-depth external reviews, and peer-reviewed scientific publications are used by federal and state agencies to provide quality assurance for the basic scientific methods used to produce stock assessments. However, the time-frame for this sort of review is not suited to the routine examination of assessments that are, generally, the primary basis for a harvest recommendation.

The review of current stock assessments requires a routine, dedicated effort that simultaneously meets the needs of NMFS, the Council, and others. Leadership, in the context of the stock assessment review process for CPS species, means consulting with all interested parties to plan, prepare terms of reference, and develop a calendar of events and a list of deliverables. Coordination means organizing and carrying out review meetings, distributing documents in a timely fashion, and making sure that assessments and reviews are completed according to plan. Leadership and coordination both involve costs, both monetary and time, which have not been calculated, but are likely substantial.

The Council and NMFS share primary responsibility to a successful STAR process. The Council will sponsor the process and involve its standing advisory committees, especially the SSC. The chair of the SSC CPS subcommittee will coordinate, oversee and facilitate the process. Together they will consult with all interested parties to plan, prepare terms of reference, and develop a calendar of events and a list of deliverables. NMFS and the Council will share fiscal and logistical responsibilities.

The CPS STAR process is sponsored by the Council, because the Federal Advisory Committee Act (FACA) limits the ability of NMFS to establish advisory committees. FACA specifies a procedure for convening advisory committees that provide consensus recommendations to the federal government. The intent of FACA was to limit the number of advisory committees; ensure that advisory committees fairly represent affected parties; and insure that advisory committee meetings, discussions, and reports are carried out and prepared in full public view. Under FACA, advisory committees must be chartered by the Department of Commerce through a rather cumbersome process. However, the Magnuson-Stevens Act exempts the Council from FACA per se, but requires public notice and open meetings similar to those under FACA.

CPS STAR Coordination

The SSC CPS subcommittee chair will work with the Council, Council staff, other agencies, groups or interested persons that carry out assessment work to coordinate and organize Stock Assessment Team (STAT) Teams and STAR Panels, and make sure that work is carried out in a timely fashion according to the calendar and terms of reference.

The SSC CPS Subcommittee chair, in consultation with the SSC, will select STAR Panel chairs, and will coordinate the selection of external reviewers following criteria for reviewer qualifications, nomination, and selection. The public is welcome to nominate qualified reviewers. Following any modifications to the stock assessments resulting from STAR Panel reviews and prior to distribution of stock assessment documents and STAR Panel reports, the coordinator will review the stock assessments and panel reports for consistency with the terms of reference, especially completeness. Inconsistencies will be identified. Authors will be requested to make appropriate revisions in time to meet the deadline for distributing documents for the CPSMT meeting at which HG recommendations are developed.

Individuals (employed by NMFS, state agencies, or other entities) that conduct assessments or technical work in connection with CPS stock assessments are responsible for ensuring their work is technically sound and complete. The Council's review process is the principal means for review of complete stock assessments, although additional in-depth technical review of methods and data is desirable. Stock assessments conducted by NMFS, state agencies, or other entities must be completed and reviewed in

full accordance with the terms of reference, at times specified in the calendar.

CPSMT Responsibilities

The CPSMT is responsible for identifying and evaluating potential management actions based on the best available scientific information. In particular, the CPSMT makes HG recommendations to the Council based on agreed control rules. The CPSMT will use stock assessments, STAR Panel reports, and other information in making their HG recommendations. Preliminary HG recommendations will be developed by the CPSMT according to the management process defined in Council Operating Procedures (COP-9). A representative of the CPSMT will serve as a liaison to each STAR Panel, but will not serve as a member of the Panel. The CPSMT will not seek revision or additional review of the stock assessments after they have been reviewed by the STAR Panel. The CPSMT chair will communicate any unresolved issues to the SSC for consideration. Successful separation of scientific (i.e., STAT Team and STAR Panels) from management (i.e., CPSMT) work depends on stock assessment documents and STAR reviews being completed by the time the CPSMT meets to discuss preliminary HG levels. However, the CPSMT can request additional model projections, based on reviewed model scenarios, in order to develop a full evaluation of potential management actions.

CPSAS Responsibilities

The chair of the CPSAS will appoint a representative to participate at the STAR Panel meeting. The CPSAS representative will participate in review discussions as an advisor to the STAR Panel, in the same capacity as the CPSMT advisor.

The CPSAS representative will attend the CPSMT meeting at which preliminary HG recommendations are developed. The CPSAS representative will also attend subsequent CPSMT, Council, and other necessary meetings.

The CPSAS representative will provide appropriate data and advice to the STAR Panel and CPSMT and will report to the CPSAS on STAR Panel and CPSMT meeting proceedings.

SSC Responsibilities

The SSC will participate in the stock assessment review process and provide the CPSMT and Council with technical advice related to the stock assessments and the review process. The SSC will assign one member from its CPS Subcommittee to each STAR Panel. This member is expected to attend the assigned STAR Panel meeting, the CPSMT meeting at which HG recommendations are made, and the Council meetings when CPS stock assessment agenda items are discussed. The SSC representative on the STAR Panel will present the STAR Panel report at CPSMT, SSC and Council meetings. The SSC representative will communicate SSC comments or questions to the CPSMT and STAR Panel chair. The SSC will review any additional analytical work on any of the stock assessments required or carried out by the CPSMT after the stock assessments have been reviewed by the STAR Panels. In addition, the SSC will review and advise the CPSMT and Council on harvest guideline recommendations.

The SSC, during their normally scheduled meetings, will serve as arbitrator to resolve disagreements between the STAT Team, STAR Panel, or CPSMT. The STAT Team and the STAR Panel may disagree on technical issues regarding an assessment. In this case, a complete stock assessment must include a point-by-point response by the STAT Team to each of the STAR Panel recommendations. Estimates and projections representing all sides of the disagreement need to be presented, reviewed, and commented on by the SSC.

Council Staff Responsibilities

Council staff will prepare meeting notices and distribute stock assessment documents, stock summaries, meeting minutes, and other appropriate documents. Council staff will assist in coordination of the STAR process. Staff will also publish or maintain file copies of reports from each STAR Panel (containing items specified in the STAR Panel's term of reference), the outline for CPS stock assessment documents, comments from external reviewers, SSC, CPSMT, and CPSAS, letters from the public, and any other relevant information. At a minimum, the stock assessments (STAT Team reports, STAR Panel reports, and stock summaries) should be published and distributed in the Council's annual CPS SAFE document.

Terms of Reference for STAR Panels and Their Meetings

The principal responsibility of the STAR Panel is to carry out the following terms of reference. The STAR Panel's work includes:

1. reviewing draft stock assessment documents and any other pertinent information (e.g.; previous assessments and STAR Panel reports, if available);
2. working with STAT Teams to ensure assessments are reviewed as needed;
3. documenting meeting discussions; and
4. reviewing summaries of stock status (prepared by STAT Teams) for inclusion in the SAFE document.

STAR Panels normally include a chair, at least one "external" member (i.e., outside the Council family and not involved in management or assessment of West Coast CPS), and one SSC member. The total number of STAR members should be at least "n+2" where n is the number of stock assessments and "2" counts the chair and external reviewer. In addition to Panel members, STAR meetings will include CPSMT and CPSAS advisory representatives with responsibilities laid out in their terms of reference.

STAR Panels normally meet for one week.

The number of assessments reviewed per Panel should not exceed two.

The STAR Panel is responsible for determining if a stock assessment document is sufficiently complete. It is the Panel's responsibility to identify assessments that cannot be reviewed or completed for any reason. The Panel's decision that an assessment is complete should be made by consensus. If a Panel cannot reach agreement, then the nature of the disagreement must be described in the Panel's report.

The STAR Panel's terms of reference concern technical aspects of stock assessment work. The STAR Panel should strive for a risk neutral approach in its reports and deliberations. Confidence intervals of indices and model outputs, as well as other measures of uncertainty that could affect management decisions, should be provided in completed stock assessments and the reports prepared by STAR Panels. The STAR Panel should identify scenarios that are unlikely or have a flawed technical basis.

Recommendations and requests to the STAT Team for additional or revised analyses must be clear, explicit and in writing. A written summary of discussion on significant technical points and lists of all STAR Panel recommendations and requests to the STAT Team are required in the STAR Panel's report. This should be completed (at least in draft form) prior to the end of the meeting. It is the chair and Panel's responsibility to carry out any follow-up review work that is required.

Additional analyses required in the stock assessment should be completed during the STAR Panel meeting. If follow-up work by the STAT Team is required after the review meeting, then it is the Panel's responsibility to track STAT Team progress. In particular, the chair is responsible for communicating with all Panel members (by phone, email, or any convenient means) to determine if the revised stock assessment and documents are complete and ready to be used by managers in the Council family. If stock assessments and reviews are not complete at the end of the STAR Panel meeting, then the work must be completed prior to the CPSMT meeting where the assessments and preliminary HG levels are discussed.

The STAR Panel, STAT Team, and all interested parties are legitimate meeting participants that must be accommodated in discussions. It is the STAR Panel chair's responsibility to manage discussions and public comment so that work can be completed.

STAT Teams and STAR Panels may disagree on technical issues. If the STAR Panel and STAT Team disagree, the STAR Panel must document the areas of disagreement in its report. The STAR Panel may request additional analysis based on alternative approaches. Estimates and projections representing all sides of the disagreement need to be presented in the assessment document, reviewed, and commented on by the SSC. It is expected that the STAT Team will make a good faith effort to complete these

analyses.

The SSC representative on the STAR Panel is expected to attend CPSMT and Council meetings where stock assessments and harvest projections are discussed to explain the reviews and provide other technical information and advice.

The chair is responsible for providing Council staff with a camera ready and suitable electronic version of the Panel's report for inclusion in the annual SAFE report.

Suggested Template for STAR Panel Report

- Minutes of the STAR Panel meeting, including name and affiliation of STAR Panel members.
- List of analyses requested by the STAR Panel.
- Comments on the technical merits and/or deficiencies in the assessment and recommendations for remedies.
- Explanation of areas of disagreement regarding STAR Panel recommendations:
 - among STAR Panel members (majority and minority reports), and
 - between the STAR Panel and STAT Team.
- Unresolved problems and major uncertainties, (e.g., any special issues that complicate scientific assessment, questions about the best model scenario).
- Prioritized recommendations for future research and data collection.

Terms of Reference for CPS STAT Teams

The STAT Team will carry out its work according to these terms of reference.

Each STAT Team will appoint a representative to coordinate work with the STAR Panel and attend the STAR Panel meeting.

Each STAT Team will appoint a representative who will attend the CPSMT, CPSAS, and Council meetings where preliminary harvest levels are discussed. In addition, a representative of the STAT Team should attend the CPSMT and Council meeting where final HG recommendations are developed, if requested or necessary. At these meetings, the STAT Team member shall be available to answer questions about the STAT Team report.

The STAT Team is responsible for preparing three versions of the stock assessment document, (1) a "draft" for discussion at the stock assessment review meeting; (2) a revised "complete draft" for distribution to the CPSMT, CPSAS, SSC, and Council for discussions about preliminary harvest levels; (3) a "final" version published in the SAFE report. Other than authorized changes, only editorial and other minor changes should be made between the "complete draft" and "final" versions. The STAT Team will distribute "draft" assessment documents to the STAR Panel, Council, and CPSMT and CPSAS representatives at least two weeks prior to the STAR Panel meeting.

The STAT Team is responsible for bringing computerized data and working assessment models to the review meeting in a form that can be analyzed on site. STAT Teams should take the initiative in building and selecting candidate models. If possible, the STAT Team should have several complete models and be prepared to justify model recommendations.

The STAT Team is responsible for producing the complete draft by the end of the STAR Panel meeting. In the event that the complete draft is not completed, the Team is responsible for completing the work as soon as possible and to the satisfaction of the STAR Panel at least one week before the CPSMT meeting.

The STAT Team and the STAR Panel may disagree on technical issues regarding an assessment, but a complete stock assessment must include a point-by-point response by the STAT Team to each of the STAR Panel recommendations. Estimates and projections representing all sides of the disagreement need to be presented, reviewed, and commented on by the SSC.

Electronic versions of final assessment documents, parameter files, data files, and key output files will be provided to Council staff.

Appendix A: Outline for CPS Stock Assessment Documents

This is an outline of items that should be included in stock assessment reports for CPS managed by the Pacific Fishery Management Council. The outline is a working document meant to provide assessment authors with flexible guidelines about how to organize and communicate their work. All items listed in the outline may not be appropriate or available for each assessment. In the interest of clarity and uniformity of presentation, stock assessment authors and reviewers are encouraged (but not required) to use the same organization and section names as in the outline. It is important that time trends of catch, abundance, harvest rates, recruitment and other key quantities be presented in tabular form to facilitate full understanding and followup work.

1. Title page and list of preparers (the names and affiliations of the stock assessment team (STAT) either alphabetically or as first and secondary authors)
2. Executive Summary (this also serves as the STAT summary included in the SAFE)
3. Introduction
 - a. Scientific name, distribution, stock structure, management units
 - b. Important features of life history that affect management (e.g., migration, sexual dimorphism, bathymetric demography)
 - c. Important features of current fishery and relevant history of fishery
 - d. Management history (e.g., changes in management measures, harvest guidelines)
 - e. Management performance – a table or tables comparing annual biomass, harvest guidelines, and landings for each management subarea and year
4. Assessment
 - a. Data
 - i. Landings by year and fishery, catch-at-age, weight-at-age, survey and CPUE data, data used to estimate biological parameters (e.g., growth rates, maturity schedules, and natural mortality) with coefficients of variances (CVs) or variances if available. Include complete tables and figures if practical
 - ii. Sample size information for length and age composition data by area, year, etc.
 - b. History of modeling approaches used for this stock – changes between current and previous assessment models
 - c. Model description
 - i. Complete description of any new modeling approaches
 - ii. Assessment program with last revision date (i.e., date executable program file was compiled)
 - iii. List and description of all likelihood components in the model
 - iv. Constraints on parameters, selectivity assumptions, natural mortality, assumed level of age reader agreement or assumed ageing error (if applicable), and other assumed parameters
 - v. Description of stock-recruitment constraint or components
 - vi. Critical assumptions and consequences of assumption failures
 - vii. Convergence criteria
 - d. Model selection and evaluation
 - i. Evidence of search for balance between realistic (but possibly over-parameterized) and simpler (but not realistic) models
 - ii. Use hierarchical approach where possible (e.g., asymptotic vs. domed selectivities, constant vs. time varying selectivities)

- iii. Do parameter estimates make sense, are they credible?
 - iv. Residual analysis (e.g., residual plots, time series plots of observed and predicted values, or other approach)
 - v. Convergence status and convergence criteria for "base-run(s)"
 - vi. Randomization run results or other evidence of search for global best estimates
 - e. Base-run(s) results
 - i. Table listing all parameters in the stock assessment model used for base runs, their purpose (e.g., recruitment parameter, selectivity parameter) and whether or not the parameter was actually estimated in the stock assessment model
 - ii. Time-series of total and spawning biomass, recruitment and fishing mortality or exploitation rate estimates (table and figures)
 - iii. Selectivity estimates (if not included elsewhere)
 - iv. Stock-recruitment relationship
 - f. Uncertainty and sensitivity analyses
 - i. The best approach for describing uncertainty and range of probable biomass estimates in CPS assessments may depend on the situation. Possible approaches include:
 - A. Sensitivity analyses (tables or figures) that show ending biomass levels or likelihood component values obtained while systematically varying emphasis factors for each type of data in the model
 - B. Likelihood profiles for parameters or biomass levels may also be used
 - C. CVs for biomass estimated by bootstrap, implicit autodifferentiation, or the delta method
 - D. Subjective appraisal of magnitude and sources of uncertainty
 - E. Comparison of alternate models
 - F. Comparison of alternate assumptions about recent recruitment
 - ii. If a range of model runs (e.g., based on CV's or alternate assumptions about model structure or recruitment) is used to depict uncertainty, then it is important that some qualitative or quantitative information about relative probability be included. If no statements about relative probability can be made, then it is important to state that all scenarios (or all scenarios between the bounds depicted by the runs) are equally likely
 - iii. If possible, ranges depicting uncertainty should include at least three runs: (a) one judged most probable; (b) at least one that depicts the range of uncertainty in the direction of lower current biomass levels; and (c) one that depicts the range of uncertainty in the direction of higher current biomass levels. The entire range of uncertainty should be carried through stock projections and decision table analyses
 - iv. Retrospective analysis (retrospective bias in base model or models for each area)
 - v. Historic analysis (plot of actual estimates from current and previous assessments for each area)
 - vi. Simulation results (if available)
5. Rebuilding Parameters (may need to be tailored to CPS)
- a. Determine B_0 as the product of spawners per recruit (SPR) in unfished state multiplied by the average recruitment expected while the stock is unfished. This typically is estimated as the average recruitment during early years of fishery;
 - b. $B_{MSY} = 0.4 B_0$; (check if applicable to CPS)
 - c. Mean generation time; and
 - d. Forward projection using a Monte Carlo re-sampling of recruitments expected to occur as the stock rebuilds. These future recruitments typically are taken from the recent time series of estimated recruitments or recruits per spawner
6. Target Fishing Mortality Rates (if changes are proposed)
7. Harvest Projections and Decision Tables
- a. Harvest projections and decision tables should cover the plausible range of uncertainty about current biomass and the full range of candidate fishing mortality targets used for the stock or requested by the CPSMT. Ideally, the alternatives described in the decision table will be

drawn from a probability distribution which describes the pattern of uncertainty regarding the status of the stock and the consequences of alternative future management actions. Where alternatives are not formally associated with a probability distribution, the document needs to present sufficient information to guide assignment of approximate probabilities to each alternative

- b. Information presented should include biomass and yield projections for at least three years into the future, beginning with the first year for which management action could be based upon the assessment

8. Management Recommendations

9. Research Needs (prioritized)

10. Acknowledgments (include STAR Panel members and affiliations as well as names and affiliations of persons who contributed data, advice or information but were not part of the assessment team)

11. Literature Cited

12. Complete Parameter Files and Results for Base Runs

COASTAL PELAGIC SPECIES ADVISORY SUBPANEL REPORT ON
COASTAL PELAGIC SPECIES STOCK ASSESSMENT TERMS OF REFERENCE

The Coastal Pelagic Species Advisory Subpanel (CPSAS) unanimously supports the Terms of Reference as put forth by the Coastal Pelagic Species Management Team with one change. On page 4 under CPSAS Responsibilities, the CPSAS would recommend striking the first three words of the first sentence in the first paragraph. Instead of the Chairman of the panel choosing the representative, the panel would like to make the choice as a group.

PFMC
04/10/03

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON
COASTAL PELAGIC SPECIES STOCK ASSESSMENT TERMS OF REFERENCE

Dr. Ray Conser updated the Scientific and Statistical Committee (SSC) on the Stock Assessment Review (STAR) workshop for coastal pelagic species (CPS). The SSC agrees the workshop should be scheduled during May 2004.

The Draft Terms of Reference (ToR), given preliminary approval at the March 2003 Council meeting, require a minor revision. Sec. 5 in Appendix A on rebuilding parameters is unnecessary for CPS species and should be replaced by a section that gives:

1. A full description of the harvest control rules in place for CPS species.
2. Current harvest rates based on the harvest control rules.
3. Harvest guidelines for the next fishing season.

The SSC expects that Council staff will complete this revision, and otherwise considers the ToR final and complete.

PFMC
04/10/03

RECEIVED

MAR 20 2003

Kenyon Hensel 871
Elk Valley rd
Crescent City Ca 95531
707-465-6857

PFMC

Shifting Management's Perspective.
Approaching fisheries management utilizing area closures.

I wish to make clear that this paper is an attempt to open discussion, not present a finished product. I expect others to finish this contribution and create solutions. I am trying to help fishing communities regain the lost benefits of their recently closed ocean resources. While at the same time, rebuilding stocks of fish as required by law. To this end I would propose to change the way we account for and control fishing effort in selected areas of the ocean.

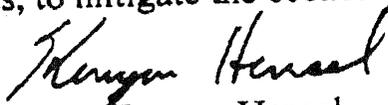
Closing the entire range of an over fished species is not necessary. Even over fishing part of a habitat should not completely inhibit a rebuilding plan for a species as long as some part of that specie's habitat is closed.

MPA science supports this idea. If X percent of habitat is closed to fishing, then MPA science would support that you have an X percent chance of rebuilding that protected area's species as fast as possible. Roughly, with 100% of the shelf closed, we have instituted a rebuilding plan that should rebuild shelf species to 100% as fast as possible. Since management is not required to rebuild stocks to 100%, we should be able to open some percentage of this closed area.

Following this theory, the percent of catch from an open area should not affect the closed area's ability to rebuild. Instead the open area with a presumed lower density of population should be a refuge from overcrowding. Thus, open areas should benefit both from the seeding of spawn from the closed area, and the migration out of the closed area by fish looking for less crowded habitat and the lower competition found there.

Areas reopened to fishing, could still be protected from complete depletion. Though with closed areas protecting stocks, depletion should not be the over riding factor triggering control of effort. Other catch controls such as gear, time on water, size, and catch per unit effort could be used as management tools.

We could substantially help individual ports by opening parts of now closed areas without sacrificing fisheries protection and rebuilding plans. Current management tools may lead to more and greater closures. We need a need a new management structure to deal with closure size, and when economically we should be looking at opening select areas for access, to mitigate the economic pain total closures cause.


Kenyon Hensel

Cover Page

03-20-03

Fax from Kenyon Hensel

Northern area representative for the Ground fish Advisory Panel

707-465-6858

To

Pacific Fisheries Management Council

503-820-2299

Public comment for April meeting

RECEIVED

MAR 17 2003

PFMC

02/11/11

**Donald McIsaac
Executive Director
Pacific Fishery Management Council
7700 Northeast Ambassador Place
Suite 200
Portland, Oregon
97220-1384 United States of America**

Dear Dr. McIsaac:

I write to encourage your support for the establishment of a network of fully protected marine reserves within the federal waters of the Channel Islands National Marine Sanctuary. The preferred alternative is fully supported by the CEQA document and by the California Fish and Game Commission.

Fully protecting portions of the waters around the Channel Islands within a network of marine reserves is the only real way to help the once thriving marine life around the Islands rebound and thrive. The islands receive important protections as a National Marine Sanctuary, however new measures are needed to restore declining fisheries and preserve habitat.

There is now compelling scientific evidence that an appropriately designed system of marine reserves can help restore damaged rockfish and invertebrate populations. To ignore these problems at this time simply ignores a more severe crisis in the future. The Channel Islands support diverse marine habitats and a unique ocean ecosystem. I strongly urge that you support a configuration of fully protected marine reserves, which protects the Islands' many habitats, including rocky reefs, sandy seafloor, and subsea canyons. By leaving a portion of your coastal waters undisturbed, marine reserves can restore biological diversity and prevent the extinction of individual species. The resulting protected areas can also provide tangible, long-term benefits to commercial and recreational fishermen.

Please finish the marine reserve network recently approved by the California State Fish and Game Commission, by completing the federal portion of this carefully-negotiated, science-based protection for key ecosystems at the Channel Islands.

Thank you for your attention to this pressing matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Ken Gilmour". The signature is written in a cursive style with a prominent initial "K".

Kenneth John Gilmour
3 - 195 Simcoe Street
Peterborough, Ontario
K9H 2H6

CANADA



16214

MAR 25 2003

Mr. Don McIsaac
Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

RECEIVED

MAR 31 2003

PFMC

Dear Mr. McIsaac and members of the Pacific Council:

The Coast Guard is currently revalidating our Fisheries Law Enforcement Strategic Plan, OCEAN GUARDIAN. The Plan provides a framework for implementing the Coast Guard's fisheries law enforcement program. When we originally developed OCEAN GUARDIAN, we sought to work closely with stakeholders to craft a plan that addressed a broad range of issues. To accomplish that end we sponsored listening sessions to gather input from all elements of the fishing industry. We produced an excellent Plan that now needs to be reassessed to reflect new challenges within the industry.

As leaders in the Pacific fishing industry, your knowledge and insight will be particularly valuable to us as we begin to formulate a plan that will guide our enforcement program for the next five years. I am sending this letter to members of all sectors of the fishing industry to invite comments and suggestions.

We plan to hold public listening sessions co-located with upcoming Fisheries Management Council meetings to facilitate receiving nationwide input from all sectors of the industry. We will be holding a listening session on Sunday, April 6th from 6-9 pm, at the Red Lion at the Quay Hotel in Vancouver, WA. I would sincerely appreciate your participation.

If you plan to attend our listening session, please contact LCDR Bob Hendrickson at 202/267-2872 or LTJG Anna Stamper at 202/267-6985. You may also reach them by e-mail at Rhendrickson@comdt.uscg.mil or Astamper@comdt.uscg.mil, respectively. Please visit our website: <http://www.uscg.mil/hq/g-o/g-opl/mle/OceanG/OceanGuardian.html>. There you can view the OCEAN GUARDIAN Strategic Plan, read a report on the status of the 1998 revalidation task list, see the venues of all of our listening sessions and provide electronic comments.

Thank you for your time and I look forward to working with you on this project.

Sincerely

A handwritten signature in black ink, appearing to read "David S. Belz".

DAVID S. BELZ
Rear Admiral, U.S. Coast Guard
Assistant Commandant for Operations