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REAUTHORIZATION OF THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

FIELD HEARING

BEFORE THE

SUBCOMMITTEE ON OCEANS AND FISHERIES

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED SIXTH CONGRESS

SECOND SESSION

JANUARY 19, 2000

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REAUTHORIZATION OF THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

WEDNESDAY, JANUARY 19, 2000

U.S. SENATE,
SUBCOMMITTEE ON OCEANS AND FISHERIES,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Seattle, WA

The Subcommittee met, pursuant to notice, at 8:15 a.m., in the Seattle SEATAC Airport Auditorium, Hon. Olympia J. Snowe, Chairman of the Subcommittee, presiding.

OPENING STATEMENT OF HON. OLYMPIA J. SNOWE, U.S. SENATOR FROM MAINE

Senator SNOWE. Good morning. The hearing will come to order.

I want to welcome everybody to this hearing on the reauthorization of the Magnuson-Stevens Act. I want to express my appreciation and gratitude to Senator Gorton for inviting me and the subcommittee to Seattle to discuss the issues important to the future of our Nation's fisheries.

It has been a privilege of mine to work with Senator Gorton over the last five years on the Commerce Committee and in the U.S. Senate. I can tell you, having seen firsthand his efforts on the Oceans and Fisheries Subcommittee, he is working very hard. I do not know anybody more tenacious when it comes to fighting for their state's interests in Washington. Certainly that is the case with respect to fisheries policy that affects the well-being of the industry in the State of Washington, as well as on the west coast.

Slade is not afraid to tempt fate, either. Just to prove that the friendly skies of America were Y2K ready, Slade flew around on New Year's Eve with the FAA, as chair of the Subcommittee on Aviation. Now, I call that a hands-on approach, Slade.

[Laughter.]

I also want to thank Senator Stevens for being with us. When it comes to the issues that we will be discussing this morning, Senator Stevens quite literally helped write the book. As one of the driving forces behind the Magnuson-Stevens Act, along with the late Warren Magnuson of Washington, Ted was the first chairman of the Subcommittee. His institutional knowledge and depth of concern are unparalleled.

I also want to welcome all the witnesses who will testify this morning. I see some familiar faces, such as Ms. Dalton, of the National Marine Fisheries Service, who has been on the road show

with me around the country. We think it is very important that your voice is heard in this process. Feedback from you is indispensable as we consider the most significant issue to come before the Subcommittee: the reauthorization of this Act.

Today we hope to hear answers to some very important questions that have arisen as a result of the 1996 changes to the Act. We want to know what has worked, what has not worked, and what your concerns are. You are on the front lines. What do you see as important for the future of your fisheries?

In our States, whether it is Washington, Alaska, Maine, Oregon, or California, fishing has been important to many generations who have been fortunate enough to work on the water. Yesterday, the subcommittee held a hearing in Anchorage, with Senator Stevens, and we discussed the many pressing issues facing the fishing communities in Alaska.

Today we will hear from those of you who live and fish in the great Pacific Northwest. Now, I am sure I do not have to tell you that the Magnuson-Stevens Act, enacted in 1976, is the principal law governing our fisheries in this country. It is administered by the National Marine Fisheries Service, as well as the eight regional fisheries management Councils, which establish the rules under which the fishing industry operates. They determine the harvest quota, season length, gear restrictions, and license limitations—decisions which have serious implications for those of you who fish and work in the Northwest.

That is why these difficult management decisions cannot be made in a vacuum. Your livelihoods are at stake. Your perspective must be incorporated in the decisionmaking process and in the final decisions that are made. It is critical that all sectors of the fishing community receive a fair and balanced representation.

In July, we began this process with an initial hearing in Washington, D.C., to examine a broad array of issues. Dr. Dave Fluharty, a professor at the University of Washington and a member of the North Pacific Council, discussed several major areas of concern. We will have the opportunity to explore these further today.

The Subcommittee has held hearings in my own State of Maine, in New Orleans, and as I said, in Anchorage yesterday. We will be holding another field hearing in Massachusetts later in the year. The intent and purpose of these hearings are to hear from as many people as possible, so that we can obtain a consensus on how to ensure a healthy future for our Nation's fisheries.

While many regions are dependent on having commercial and recreational fisheries that are strong and robust, others have not fared as well. I know this is particularly true here with the groundfish industry and the decline of fish stocks. Communities in this region are feeling the weight of the economic burden. Throughout this reauthorization process, we will be attentive to the most efficient, effective, and responsive ways to help bring about healthy fisheries as well as healthy fishing communities.

One of the overall goals of the Act was to provide a mechanism to determine the appropriate level of catch to maximize benefits to the Nation, while still protecting the long-term sustainability of the fisheries. It is a balancing act among competing interests. We will

hear about the need for participation from non-fishing interests when managing public resources.

The Sustainable Fisheries Act of 1996 also reflected significant changes to the goals of the Magnuson-Stevens Act. Proper implementation of these provisions is of great concern to many different groups. That is why there will be considerable interest in the activities of the regional Councils, as well as the National Marine Fisheries Service.

The most substantial change under the 1996 Act was the mandate to stop overfishing and restore overfished stocks. The Councils were given a timetable to achieve this goal. Today's witnesses will be able to give firsthand reports about the level of success the Pacific Council has had in meeting this requirement. The Councils and NMFS were also told to emphasize the socioeconomic impacts that regulations have had on fishing communities. Clearly, Congress intended to preserve the fishermen as well as the fish.

Because of my concern, I asked about National Standard 8, regarding the socioeconomic impacts, and the way in which it was being implemented. Senator Breaux and I asked for an investigation by GAO, to examine the ways in which NMFS has administered this provision of law. The Sustainable Fisheries Act also imposed a moratorium on the creation of new individual fishing quotas, or IFQ's. The moratorium will expire on October 1st of this year, so I would encourage witnesses to offer recommendations today on how the subcommittee should address this issue in the future.

The final policy shifts in the Sustainable Fisheries Act are the provisions to minimize bycatch and protect fish habitat. Based on the concerns that certain fish stock have declined due to their loss of surrounding habitat, the Act established a national program to facilitate the long-term protection of essential fish habitat.

Many argue that these provisions have not been properly implemented. We will discuss that problem with our witnesses here today.

Finally, from my own discussions with the fishing industry and those who represent it in my State of Maine, I have heard time and again that they feel the law is too rigid, that it's not being implemented properly, and that—contrary to its mandate—the best science is not being used in management. From reviewing your testimony, I know that some of these same concerns will be expressed by many of you.

As we move forward in this process, we must make sure that sustainable fishing and good management become the norm and not the exception. Clearly, this reauthorization will have major implications for the future of marine fisheries in the United States. I should say that I view this as a unique opportunity to take what we have learned and to craft a sensible and balanced approach to fisheries resources, which are so important to the states that we all represent and to the Nation as a whole.

I would appreciate hearing your views as to whether or not we should overhaul the legislation or fine-tune it, in order to make significant improvements for the future.

Some people say that it will take a very long time to implement the provisions that are already in place from the 1996 Act. We

have also been cautioned not to take too long, because it erodes confidence when the policies do not work efficiently and effectively.

So, again, I thank all of you for being here today. Now, it is my pleasure to turn to Senator Gorton. Thank you again, Senator Gorton, for having us here in the beautiful State of Washington.

STATEMENT OF HON. SLADE GORTON, U.S. SENATOR FROM WASHINGTON

Senator GORTON. Senator Snowe has certainly gone well above and beyond her duty in going from coast to coast, to Alaska, and late back here this evening, to evidence the proposition that she is interested in the fishery not only in her own State of Maine, where it is obviously a vital natural resource, but on the other coast, as well. And it is only through the kind of cooperation that her willingness to do this hard work illustrates that I think we are likely to solve some of the very real challenges that face us here in this reauthorization of Magnuson-Stevens Act.

Senator Stevens is also welcome. I hardly need to welcome Senator Stevens to Seattle. He seems to be here almost as frequently as I am, and has always shown a great interest not just in fisheries, but in all of the other many issues that bind our States so closely together.

All of you in this room know as well as Senator Snowe and I do that Senator Stevens occasionally has strong views on certain subjects. And I must say that those strong views, to me, have created both a friendship and an association which is one that I value more than almost any other in my career and in my life. And he is particularly welcome here, not just as a colleague, but as a friend.

For those of you in the audience, I wish that we could have accommodated more formal witnesses. We are going to try to hear from some of you in an open microphone session that will come after the three panels.

The life of a fisherman has never been easy, but it has been particularly difficult during the last couple of decades here on the west coast. In the past 20 years, the harvest of groundfish, except for whiting, off the west coast has been reduced by 70 percent, but little has been done to reduce fishing capacity.

In 1996, when we last reauthorized the Federal law that governs fishing in the exclusive economic zone, we adopted a series of stringent conservation measures to facilitate the rebuilding of fish stocks. In response to these changes, the Pacific Fisheries Management Council has imposed significant cuts in many groundfish quotas, and made life for today's fishermen even harder.

West coast fishermen have accepted extraordinary sacrifices for the long-term health of the resource. This willingness to embark on the long path to recovery, in the hopes that perhaps for some overfished species, such as bocaccio, their children's children's children, many uncontrollable environmental conditions permitting, will see a healthy fishery—that is laudable.

I recognize the inadequacy, however, of praise alone. The sacrifices of west coast fishermen have imposed serious economic hardships, particularly for small operations. I hope that Congress will respond to the Pacific Council's warning that the groundfish fishery

is facing an economic disaster by providing economic relief, just as it responded to fishery disasters on the East Coast.

In 1996, we amended the Magnuson-Stevens Act to authorize disaster relief for fishermen and vessel and license buyout programs. We need to ensure that these provisions do not remain dormant and unfunded at a time at which the need is so great.

In helping to put together today's hearing, I felt it was critical to have one panel address the issue of data collection and analysis. In the absence of more accurate information, many have advocated a precautionary approach that, while generally appropriate in the face of uncertainty, is not an acceptable long-term management method. It is unfair both to the fishermen and to the resource.

I understand that of the more than 80 species in the groundfish complex managed by the Pacific Council, 75 percent have never been formally assessed. And those species that are assessed are evaluated only every third year. Unfortunately, however, the problem caused by inadequate data is not easily resolved. We can, however, start making some headway. And I strongly believe that we should do so.

There are many stocks for which we will not have enough information for decades to manage in a fully informed manner. Not only do we not know the current stock size for many species, we do not know what the stock size would be in the absence of fishing, or even how much stock is being taken by fishermen. The expanse of the scientific chasm that faces our managers should not cause us, however, simply to turn around and walk away. We need to start getting a better idea of what is in our oceans and what we are catching if we expect the regional Councils and the National Marine Fisheries Service to manage the fisheries responsibly and fairly.

For years, I have attempted, with limited success, to increase the President's budget for data collection and stock assessments of west coast groundfish. Today, I appeal to the administration to make this uphill battle easier by increasing the funds allocated for west coast groundfish stock assessments in the President's 2001 budget.

But while I hold the administration responsible in part for inadequately funding groundfish stock assessments, Congress bears the blame for not retaining the $2 million included in the President's budget for a much needed west coast observer program. I strongly supported this request, but was unable to retain it in the face of opposition from the House of Representatives.

I agree that an observer program should be implemented on the west coast, and pledge to try to amend the Magnuson-Stevens Act to authorize the Pacific Council to impose a broad-based fee to pay for these observers. In recognition of the economic hardship that is being suffered in so many of our fisheries, however, I will also attempt again to obtain Federal funding to help pay for such a program on the west coast, and hope that the administration will continue its support for this program.

While the need for additional resources, and perhaps better use of existing resources, for data collection is generally noncontroversial, there are other issues we must deal with in this reauthorization that are far more controversial. One of these is individual fishing quotas, or IFQ's. The 1996 Sustainable Fisheries Act imposed

a moratorium until October 2000 on the adoption of new IFQ's. Since then, all eight regional Councils have recommended to Congress that the moratorium on IFQ's be allowed to expire and that Councils be permitted to include IFQ's in their management tool boxes.

The National Research Council, which Congress asked to conduct a comprehensive study of IFQ's, made the same recommendation. Recognizing the difficulty of many of these policy concerns, including the equity of the original allocations, the fear of excessive corporate consolidation and the effect of IFQ's on the relative power of processors versus catchers, I nevertheless concur with the Councils and hope that Congress will not categorically extend the moratorium.

That said, I look forward to working with my colleagues and all interested parties to determine what, if any, IFQ guidelines should be codified in the Magnuson-Stevens Act.

Another issue of the 1996 Sustainable Fisheries Act that we need carefully to reconsider is the provision regarding essential fish habitat and its impact on non-fishery interests. While we have repeatedly been assured by the National Marine Fisheries Service that the potential designation of much of the States of Washington, Oregon and California as essential fish habitat under Magnuson-Stevens will not unduly burden non-fishery interests because the consultation requirements required for Federal activity in these areas will overlap with numerous other consultation requirements, National Marine Fisheries Service regulations regarding essential fish habitat suggests otherwise.

I look forward to hearing the testimony on this topic. The issues, of course, are many and are complex. I look forward to hearing from each of you how best you feel that we should address them.

Thank you.

Senator SNOWE. Thank you very much, Senator Gorton.

I would now like to recognize the distinguished Senator from Alaska, Senator Stevens.

STATEMENT OF HON. TED STEVENS,
U.S. SENATOR FROM ALASKA

Senator STEVENS. Thank you very much, Madam Chairperson. I am very pleased to be back here again to have an opportunity to hear the views of the people of this area concerning the problems we face in the fishing industry.

Yesterday, we had a very good hearing, I think, in Alaska. It was a very extensive one. And we have heard a great many ideas. Slade, you will be happy to know that there seems to be a change of opinion in Alaska concerning IFQ's, at least to a certain extent, with many of the people who, in the past opposed IFQ's appearing before us yesterday, and suggesting that this is a valuable tool for the regional Councils. But they also suggested some other tools that might be considered by the Councils and not mandate just one single new management concept.

I do believe, though, that the most significant part of the hearing yesterday was the portion that covered the crash of the opilio fleet. And I think that is a very significant problem. It certainly comes

within the area of the disaster provisions that you have referred to.

As Chairman of the Appropriations Committee, and you are a member also, Senator Gorton, and I do not know how many of you realize, we provided $8 billion more than the Administration requested last year for agricultural disasters. Well, we had a severe problem in getting a small amount—I think it was about $65 million before we were through—for a fisheries disaster. That attitude has to change, because the effects of El Nino and La Nina on fisheries resources is not different than the effect of the tornadoes and extreme storms that the agricultural areas have faced in the last few years.

I do hope that we can come to an agreement about how to handle the disaster type of funding. And clearly the opilio issue is going to be in the forefront of my mind as we try to approach that issue this year.

I agree with what Senator Gorton said about the basic problem of the habitat issues. And I was happy, and I think you will be happy to hear, some of the comments made by the agency representatives on that issue. It truly is, I think, a problem that we have to avoid. We have to avoid making the essential fish habitat concept into an Endangered Species Act, in terms of the type of intercession that the courts could have on fisheries management if we are not careful. And I hope that everyone will agree on that.

There are a great many issues that we will cover today that I think that we heard testimony on yesterday. And as I said, I am looking forward to the comments that you all will make on those issues.

I appreciate what Senator Snowe is doing. She also went to Louisiana. She has been all over the country. And I have got to, without tooting my own horn, say that I have been there and I have done that.

[Laughter.]

And it takes time to do that and it takes really a commitment of staff and of the Chairman's office to make these hearings into what Senator Snowe has made them. They are very informative hearings, and I think they are going to be essential to convincing our colleagues who are not from coastal States of the need for action this year to try to deal with these issues.

I agree with you; I hope we can get the bill passed this year. It is going to be a difficult thing to do because of all of the problems of a Presidential election year. But if we can come to a consensus and not have battles between areas of the country or battles with those who are in charge with enforcing the laws that we have passed, I do think we can come to an agreement on what to do and get set about making the changes to the existing laws that should be made because of the developments we have seen in the last year or two.

Thank you very much.

Senator SNOWE. Thank you, Senator Stevens. Thank you very much.

Before I welcome the first panel, I would like to introduce our staff: Sloan Rappoport and Stephanie Bailenson, from my Subcommittee staff, and Margaret Spring, from the minority Sub-

committee staff, have travelled from Washington, D.C. to be here. Jeanne Bumpus from Senator Gorton's D.C. staff is here as well, in addition to Dave Russell from Senator Stevens's office, and Bill Woolf from Senator Murkowski's office.

I would like to welcome the first panel members. Ms. Penny Dalton is the Assistant Administrator of the National Marine Fisheries Service, and I am grateful for her considerable effort to travel around the country and attend all of the field hearings that I have held. I really want to express my appreciation to you, Ms. Dalton, for your willingness to testify and be part of this process.

She is accompanied by Mr. Will Stelle, who, by the way, has Maine roots. Good to have you here, and thank you very much for being here.

We also have Mr. Jim Lone, Chairman of the Pacific Council. The next witness is Mr. Phil Anderson, of the Washington Department of Fish and Wildlife. Our final witness will be Mr. Jim Harp, a member of the Pacific Council.

I thank you all for being here. Ms. Dalton, we will start with you.

STATEMENT OF PENELOPE DALTON, ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL OCEANIC ATMOSPHERIC ADMINISTRATION, ACCOMPANIED BY WILL STELLE, ASSISTANT ADMINISTRATOR, NORTHWEST REGION

Ms. DALTON. Good morning. Thank you for the opportunity to testify. It actually has been a great learning experience for me to participate in these hearings.

I am Penny Dalton, NOAA Assistant Administrator for Fisheries. Accompanying me is Will Stelle, our Northwest Regional Administrator.

As you know, marine fisheries make a significant contribution to coastal economies in California, Oregon and Washington. West coast fishermen harvested close to a billion pounds of seafood in 1998, producing over $280 million in dockside revenues. In addition, 1.7 million saltwater anglers in the region took 7 million trips and caught 28 million fish. While these figures are substantial, they have declined noticeably in important fisheries like Pacific groundfish and salmon.

On the west coast, NOAA Fisheries and the Pacific Fishery Management Council manage 83 species of groundfish, five species of salmon, and five coastal pelagic species under three fishery management plans. Development of a fourth plan for highly migratory species also is underway.

Other west coast fisheries, such as pink shrimp and dungeness crab, are managed by the States, with coordination through the Pacific States Marine Fisheries Commission.

The 1993 report to Congress on the status of U.S. fishery resources designates three Pacific groundfish species as overfished: bocaccio, ling cod, and Pacific Ocean perch. For each of these species, the Pacific Council adopted, and NOAA Fisheries approved, rebuilding plans that went into effect at the beginning of the year.

At the same time, two other Pacific groundfish species—cowcod and canary rockfish—were designated as overfished. Catch levels for these species have been reduced to address overfishing, while rebuilding plans are being developed and implemented. It is now

clear the Pacific groundfish stocks are not as productive or as resilient as previously thought, and the reduced quotas reflect this lower productivity.

The result has been much more restrictive management, not only for the overfished species, but also for fisheries that target other healthier stocks but incidentally take overfished species. We expect commercial west coast ground fishermen to incur a loss of at least $9 million to $11 million in the year 2000 relative to 1999. This loss might be greater if one considers processing and support industries and coastal communities.

The Governors of California, Oregon and Washington have requested the Secretary of Commerce to determine that a commercial fishery failure has occurred due to a fishery resource disaster. Today, Secretary Daley is announcing that he would make such an affirmative determination. His decision was based on our scientists' assessment that an unusually low level of recruitment of young fish into the fishery has resulted in a resource disaster of undetermined but probably natural causes.

Among possible causes are an ocean regime shift, El Nino, and low stock productivity. Because many of these stocks are long-lived and slow-growing, rebuilding efforts are likely to be lengthy. In addition, the groundfish fishery is composed of several dozen stocks, and we still lack basic scientific information for stock assessments in setting harvests at sustainable levels.

If Congress appropriates funds to mitigate the fishery failure, NOAA Fisheries will work with affected States, fishermen and communities to develop an assistance program. We are particularly interested in improving our scientific understanding, addressing the needs of fishermen and their families, and reducing overcapacity.

Regulations to implement an industry-funded buyback program have been prepared and are under review by the Department and OMB. We expect an interim final rule to be published soon. Our challenge now is to protect and rebuilt depleted stocks while minimizing, to the extent possible, economic and social impacts on fishing communities.

Turning to Pacific salmon, the ocean salmon fishery has been severely curtailed due to the listing under the Endangered Species Act of 26 populations of salmon and steelhead trout. The Council is working to limit impacts of marine fisheries on these populations, reducing Snake River fall chinook harvests by at least 30 percent and Puget Sound chinook harvests by up to 45 percent. One recent effort was to fin-mark hatchery fish to allow their continued harvest without jeopardizing the recovery of wild stocks.

On a positive note, we successfully completed the final steps to fully implement the new Pacific salmon agreement between the United States and Canada. We look forward to the conservation benefits and international stability that this agreement will bring to our salmon recovery efforts.

The increased emphasis of the Magnuson-Stevens Act on conserving and enhancing essential fish habitat remains an issue in the region. Past management measures have included restrictions on the use of certain gear in sensitive marine habitat. EFH has been designated for nearly 100 west coast species. And because of

their large number and diversity, designated areas range from freshwater streams and estuaries to open ocean. In addition, the Council is evaluating the potential of marine reserves for protecting habitat and reducing overfishing in the groundfish fishery.

NOAA Fisheries has conducted close to 2,500 consultations with Federal agencies whose non-fishing activities may adversely affect EFH. The process integrates EFH consultations into existing environmental reviews to minimize impacts on Federal agencies and the public.

And to just digress for a minute, one of the things that I thought might be helpful was to talk a little bit about the background of this issue. We came out with a proposed rule after the 1996 amendments that I think was criticized a fair amount because it was too expansive. We looked at all of the comments that we got and we published an interim final rule that the basic purpose of it was to integrate this process into our existing reviews that we conduct under the Fish and Wildlife Coordination Act, the Clean Water Act, ESA, and the Federal Power Act.

At this point, it is an interim final rule. We just reopened the comment period. And we are hoping to be able to publish a final rule sometime in the near future. What we are hoping is a lot of the concerns that are being expressed now have also been given to us during the comment period and that a lot of our revisions should address those concerns as much as we can.

Another thing that we have done, in California, we have begun a process that is called one stop shopping, where we have actually begun to integrate the permitting process for ESA, EFH, essential fish habitat, also for the National Ocean Service programs, like marine sanctuaries and coastal zone management. And what we are hoping—that is a pilot program now—is that that can be expanded to other parts of the country, to reduce the regulatory burden on industries that have activities in coastal areas.

We want to work with you, I think, to refine the statute and the process. One of the things that we are a little concerned of is not to lose sight of the goal that these provisions were put in the Act for. And that is that good U.S. fisheries, sustained U.S. fisheries rely on a healthy habitat. So we need to deal with these problems.

In closing, NOAA Fisheries is still working to implement the amendments made to the Magnuson-Stevens Act in 1996 and will propose no major changes at this time. However, we have identified revisions that may improve management process and resolve some relatively minor problems. These are discussed in my written statement.

In addition, we look forward to working with congressional members on high-priority issues, such as observer programs, individual fishing quotas, and funding of the authorities. Thank you.

[The prepared statement of Ms. Dalton follows:]

PREPARED STATEMENT OF PENELOPE DALTON, ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATOR

Madame Chair and members of the Subcommittee, thank you for inviting me to Seattle to testify on the implementation and reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), and to speak on issues of concern to west coast fishermen. I am Penny Dalton, Assistant

Administrator for Fisheries for the National Oceanic and Atmospheric Administration.

BUILDING A FOUNDATION FOR SUSTAINABLE FISHERIES—WEST COAST FISHERIES

Commercial and recreational fisheries off the coasts of Washington, Oregon, and California are important national resources. In 1998, west coast commercial fishermen harvested over 980 million pounds of fish, shellfish, and crustaceans in marine waters (including Puget Sound), producing over $280 million in dockside revenue from the commercial fishery.

In addition, in 1998, 1.7 million marine recreational fishing participants took 7 million trips and caught a total of 28 million fish off the west coast. Seventy percent of the trips were made in California, followed by 21 percent in Washington, and 9 percent in Oregon. Although the recreational harvest on the west coast is much smaller than the commercial harvest, this fishery is an important component of the west coast fishing industry and way of life.

While the seafood and marine recreational fishing industries make substantial contributions to coastal communities, current harvest levels have declined noticeably in some key fisheries, notably Pacific groundfish and Pacific salmon. Current harvest yields are substantially lower than the long-term potential yield.

From a regional perspective, over 80 species of Pacific groundfish, three species of Pacific salmon and five coastal pelagic species are managed under three fishery management plans (FMPs) developed by the Pacific Fishery Management Council (Pacific Council). The Pacific Council is currently in the process of developing a fourth FMP for highly migratory species. Other major west coast fisheries such as pink shrimp and Dungeness crab are managed under State jurisdiction in coordination with the Pacific States Marine Fisheries Commission. In the 1999 Report to Congress, three Pacific groundfish species managed by the Pacific Council were declared overfished. NOAA Fisheries notified the Pacific Council in March of last year that bocaccio rockfish, ling cod and Pacific ocean perch were overfished. The Pacific Council has adopted rebuilding plans for each of the three species with the goal of rebuilding these stocks and increasing long-term yield. NOAA Fisheries has approved regulations to implement the rebuilding plans that became effective on January 1, 2000. Concurrent with the publication of the year 2000 fishing regulations in the Federal Register, NOAA Fisheries has notified the Pacific Council that two additional species of Pacific groundfish, cowcod and canary rockfish, are overfished bringing the total number of overfished species to five. Although no salmon species currently meet the Pacific Salmon Fishery Management Plan's definition of "overfished," ocean salmon fishing has been severely curtailed due to the listing under the Endangered Species Act of 26 different populations of salmon, steelhead, and cutthroat trout.

The Pacific groundfish fishery is an important commercial and recreational fishery. Indeed, the flow of various products throughout the year from the groundfish fishery is often what keeps many processors and fishery participants in business. However, it has become apparent that Pacific groundfish stocks are not as productive or resilient as previously thought. We have reduced quotas to reflect this lower productivity. In addition, the new provisions of the Magnuson-Stevens Act necessitate more conservative management for the five species that we have determined are overfished. This has resulted in much more restrictive management not only for fisheries on the overfished species, but also for fisheries that target on other, healthier stocks that incidentally encounter overfished species.

We expect commercial west coast groundfish fishermen to incur a loss of at least $3–$15 million in 2000 relative to 1999. This loss might be greater if one considers processing and support industries in the coastal communities. This assumes also that the quotas of all managed species will be entirely harvested, which may not happen. Some healthy stocks will not be fully harvested because their harvest will be constrained by regulations designed to protect co-occurring overfished species.

These declines are particularly painful when added to losses experienced in previous years. Between 1997–1998, fishermen's revenue from Pacific groundfish was just under $68 million, the lowest level in 18 years. This was in part due to instability in Asian economies, but also due to reduced fishing quotas and other management actions for some species. Moreover, because rebuilding plans on most overfished groundfish species are expected to continue for about 30 years, the prognosis for rapid economic recovery for the west coast groundfish industry in the absence of some form of industry restructuring is not good.

The Governors of California and Oregon have requested that the Secretary of Commerce make a disaster declaration based upon a commercial fisheries failure. We are currently in the process of evaluating the causes for the fishery resource de-

cline and its economic impacts, and hope to make a determination very soon. If Congress appropriates funds to mitigate a west coast groundfish fishery disaster, NOAA Fisheries intends to work with the affected States to consult with the fishing industry and affected communities to determine the best use of disaster funding. Areas of particular interest are finding ways to improve our understanding of the ecology of the fishery, address the needs of displaced fishermen and their families, and reduce significant overcapacity in the fishery.

Several fundamental issues still exist that complicate the conservation and management of Pacific groundfish resources. A major underlying reason for the current situation is the lack of basic scientific data to conduct stock assessments and to set harvest limits that will maintain groundfish stocks at sustainable levels. Although NOAA Fisheries has improved its capability to collect scientific information through a number of cooperative projects with the fishing industry and with the academic community, we are far short of what we need to improve our fishery management decisions. Typically, only six of the over 80 groundfish stocks are assessed each year, and only 26 have had some form of stock assessment analysis. Only 16 of the assessments have had enough data and analysis to allow determination of the species status. Of these 16 species, five are listed as overfished. Basic research needs include increasing the frequency and scope of surveys; accounting for discarded bycatch through an at-sea observer program; increasing research on essential fish habitat; and improving the capability to assess social and economic impacts of fishery management on fishery participants and fishing communities.

Turning now to Pacific salmon, you are all well aware that the majority of native west coast salmon stocks are seriously depleted as evidenced by the listing of 26 distinct populations from Central California north to Puget Sound, Washington as threatened or endangered. Factors in this decline can be categorized into the now-familiar "Hs"—habitat degradation, harvest overages, hydropower development, and hatchery practices. The Pacific Council has made significant progress in reducing the impacts of overharvest in marine areas, including reducing the ocean harvest rate on Snake River fall chinook by 30 percent or more. Although the harvest rate on Puget Sound chinook in the ocean fishery is low (only 1 to 3 percent), commercial chinook catches in Puget Sound have been reduced by 60 percent and the total Puget Sound chinook harvest has been reduced by up to 45 percent. In some areas, we have fin-marked 100 percent of our hatchery fish and have started to implement "fin-marked only" selective fisheries, where hatchery fish can be safely harvested, while unmarked wild fish are returned to the water. We are proceeding cautiously in this area, but believe that conservatively designed selective fisheries for marked hatchery fish can be compatible with the recovery of our wild salmon stocks. Also, we recently completed the final steps to fully implement the new Pacific Salmon Treaty agreement with Canada, which should contribute significant stability and coordination to our salmon recovery efforts.

In spite of the fact that Pacific groundfish and salmon fishing mortality has been reduced through state and federal management efforts, we still have a long way to go. New stock assessments on previously unassessed groundfish species are likely to result in the need for further harvest reductions given what we now know about stock productivity and other factors. Our challenge will be to protect and rebuild those stocks most seriously depleted, while minimizing to the extent possible adverse economic and social impacts on fishing communities.

Recognizing that serious problems remain with some fishery resources, we are cautiously optimistic about the future of west coast marine fisheries. We must continue to protect overfished fish stocks, focus on improving yields over the long term, and identify additional measures that would move depleted stocks toward recovery. It is clear that fishery management can work. When we reduce mortality, biomass increases; and at some point, when nature cooperates, good year classes enter the fishery. However, we remain cautious as we face the challenges before us. We must work with the Council, States, and fishermen to maintain management plans that work, adjust our course where plans are not effective, and minimize to the extent possible the impacts on communities and the fishing industry as we make the transition to sustainable fisheries. I appreciate the commitment of members of the west coast delegation, industry, and fishing communities to this transition. I look forward with you to restoring fish stocks that support a vibrant fishing industry and healthy coastal economies.

IMPLEMENTATION OF THE SUSTAINABLE FISHERIES ACT

As we enter the 21st Century, we are at a crucial point in fisheries management, with considerable work ahead of us. In the 23 years since the enactment of the Magnuson-Stevens Act, we have seen the complete Americanization of fisheries in fed-

eral waters, the expansion of the domestic fishing industry, declines in many fishery resources, and the rise of public interest in fisheries issues. We have seen some successes from our management actions, including rebuilding of Spanish mackerel, the initial rebound of a few depleted stocks like Gulf of Mexico red snapper and Georges Bank haddock, and the continued strong production of fish stocks off Alaska. However, as of 1999, 11 percent of U.S. living marine resources are overfished or are approaching overfished, 14 percent are not overfished, and there is another 75 percent whose status is unknown. On the west coast, about 5 percent of Federally managed living marine resources are overfished or are approaching the overfished status, 12 percent are not overfished, and there is another 83 percent whose status is unknown. We at NOAA Fisheries are working to rebuild fish stocks to levels that could sustain fisheries of greater economic value. From a national perspective, scientists estimate that we could increase U.S. fishery landings up to 6.8 billion pounds by rebuilding all fisheries and maintaining harvests at optimal yields.

The Magnuson-Stevens Act provides the national framework for conserving and managing the wealth of fishery resources found within the 197-mile-wide zone of Federal waters contiguous to the United States (except for the coastal waters for Texas and the Gulf of Mexico coast of Florida where state waters extend out to 9 nautical miles). In 1996, Congress ushered in a new era in fisheries management, making significant revisions to the Magnuson-Stevens Act in the Sustainable Fisheries Act (SFA). The SFA addresses a number of conservation issues. First, to prevent overfishing and rebuild depleted fisheries, the SFA caps fishery harvests at the maximum sustainable level and requires fishery management plans to rebuild any overfished fishery. NOAA Fisheries now reports annually on the health of marine fisheries and identifies fisheries that are overfished or approaching an overfished condition. Second, the SFA refocused fisheries management by emphasizing the need to protect fisheries habitat. To enhance this goal, the SFA requires that management plans identify habitat that is necessary to fish for spawning, feeding, or growth. The new law also clarifies our existing authority to comment on Federal actions that affect essential fish habitat. Third, to reduce bycatch and waste, the SFA adds a new National Standard requiring that conservation and management measures minimize bycatch and the mortality of bycatch that cannot be avoided. It also calls for management plans to assess bycatch and to take steps to reduce it.

The new conservation requirements may have far-reaching effects on recreational and commercial fishing and on fishermen, their families and communities. To address this concern, the SFA establishes a new National Standard 8 that requires, consistent with conservation objectives, that fishery management plans provide for the sustained participation of fishing communities and minimize adverse impacts to the extent practicable. In addition, a national standard has been added to promote the safety of human life at sea. Finally, the SFA provides a number of new tools for addressing problems relating to the transition to sustainable fisheries, including amendments to provide for fisheries disaster relief, fishing capacity reduction programs, vessel financing, and grants and other financial assistance.

IMPLEMENTATION OF THE SUSTAINABLE FISHERIES ACT

NOAA Fisheries takes seriously its new mandates under the SFA. We are continuing to work to ensure that SFA requirements are implemented, and that conservation and management measures fully protect the resource and provide for the needs of fishing communities and the Nation. A great deal of work remains to be done. We are laying a better foundation for future fisheries management, yet the benefits of the changes made by Congress in 1996 will take years, perhaps decades, to realize. In addition, the management decisions that we face are becoming ever more complex and contentious, and good solutions are hard to come by. We need to direct resources and effort to the scientific and technical aspects of our work. We also must build consensus with the public and among various stakeholders to facilitate progress in developing management programs that will move us toward the goal of healthy and sustainable marine resources.

The SFA imposed a deadline of October 11, 1998 for amendments to each of the 39 existing fishery management plans to implement its changes. Despite the Councils' best efforts, there were some proposed amendments that did not satisfy the requirements, for which the analyses were inadequate, or that did not minimize socioeconomic or environmental impacts to the extent possible and achieve management objectives. NOAA Fisheries disapproved or partially approved those amendments and is working closely with the Councils to improve them, particularly in the areas of assessing social and economic impacts, rebuilding overfished stocks, minimizing bycatch, identifying and protecting fish habitat, and improving the scientific basis for management. I will outline some of the work we are doing in each of these areas:

Social and economic analysis: One of NOAA Fisheries' highest priorities is to improve our social and economic analyses. These analyses are required by a number of laws in addition to the Magnuson-Stevens Act, including the Regulatory Flexibility Act, the National Environmental Policy Act (NEPA), and Executive Order 12866. The requirement of the Magnuson-Stevens Act to include a fishery impact statement, and the new standard on fishing communities, also make clear our mandate to consider the social and economic impacts of any management program. This consistently has been an important part of the decision-making process and has affected our choice of fisheries conservation and management actions. For instance, the Pacific groundfish fishing regulations use varying trip limits that are designed to keep the fishing season open during the majority of the year and stabilize product flow and prices. In addition, new fishing regulations this year offer higher trip limits to vessel operators willing to use fishing gear that results in less bycatch of depleted species. Similarly, selective fisheries for fin-marked hatchery salmon allow both recreational and commercial fishermen continued access to healthy hatchery salmon stocks without jeopardizing the recovery of wild stocks.

To strengthen our social and economic analysis capabilities, we are issuing revised Regulatory Flexibility Act guidelines to our employees, hiring more economists, sociologists, and anthropologists, and working with other Federal agencies and states to improve our data collection. As a result, economic, social, and biological considerations will be better integrated to assist fisheries managers in making the best possible decisions to balance conservation, the fishing industry, and community needs.

Rebuilding overfished stocks: NOAA Fisheries is committed to ending overfishing and rebuilding stocks. This has proven to be a very difficult task, in part because of the complex biological structure of fisheries and complicated calculations of maximum sustainable yield and other fishery parameters.

Along the west coast, the five overfished species of Pacific groundfish have become the focal point for both overfishing and bycatch. The management of Pacific groundfish, particularly rockfish species, is complicated, because the species are very long-lived, and require lengthy rebuilding programs. To stop overfishing in the groundfish fishery, we have reduced quotas, redefined stock aggregates to better manage stocks found in the same habitats, implemented seasonal closures, and limited the landings taken with certain gear types in the commercial sector, and we have reduced bag limits and implemented similar seasonal closures in the recreational sector.

Minimizing bycatch: Minimizing bycatch continues to be a very high priority for NOAA Fisheries on the west coast. We disapproved the bycatch amendments in both the Pacific Groundfish and Coastal Pelagic FMPs and returned the amendments to the Pacific Council for further work, including developing more specific plans for determining bycatch levels in the fishery and for minimizing bycatch. We are also working with the Pacific Council to develop the parameters of an at-sea observer program that will accurately assess the level of bycatch in the Pacific groundfish fishery, and to find funding for the observer program.

Essential Fish Habitat: I am well aware of your constituents' concerns over the increased emphasis of the Magnuson-Stevens Act on conserving and enhancing essential fish habitat (EFH). I wish to emphasize the agency's intention to minimize impacts on fishermen and non-fishing industries, while ensuring the long-term viability of the fish stocks. On the west coast, EFH was designated for nearly 100 marine species. Where data were available, EFH was identified for each individual species and life stage using the best available scientific information. Because of the great number of managed species and the wide diversity of habitats utilized by the various life stages of those species, habitats identified as EFH range from freshwater stream and estuarine habitats to the limits of the EEZ.

The EFH provisions of the Magnuson-Stevens Act address impacts from both fishing and non-fishing activities. In response to fishing gear threats, the Council has considered measures to reduce the adverse impacts of fishing activities to EFH. Past management measures have included prohibitions in the use of certain or all gear types in areas of sensitive marine habitats or restrictions to size and number of some gear types in selected habitats. The Council is actively evaluating the concept of marine reserves within which fishing activities would be either prohibited or greatly restricted to protect marine habitat and the ecosystems they support.

To address non-fishing activities, NOAA Fisheries has conducted close to 2,500 consultations to date with Federal agencies whose actions may adversely affect EFH. These reviews have been accomplished by integrating EFH consultations largely into existing environmental review processes as a way to minimize regu-

latory impacts on Federal action agencies and the public. We expect the number of consultations to increase as outreach efforts with Federal agencies continue to build awareness of the EFH statutory requirements. However, it is important to remember that even prior to the designation of EFH, most Federal actions affecting the habitat of marine and anadromous species were subject to review by NOAA Fisheries under other legal authorities. EFH has provided more emphasis and structure to these reviews, and we are working closely with affected agencies and industries to ensure that the EFH consultation process is efficiently implemented. For example, once the Pacific salmon EFH designations are approved by the Secretary, we anticipate that the vast majority of salmon EFH reviews will be accomplished in conjunction with Endangered Species Act consultations to ensure that no duplicative analyses are required.

Improving technical and scientific information and analyses: NOAA Fisheries is committed to using the best possible science in the decision-making process, and to incorporating biological, social, and economic research findings into fisheries conservation and management measures. Meeting our responsibilities under the Magnuson-Stevens Act and other applicable laws requires collection of a considerable amount of data. We will continue to support a precautionary approach in the face of scientific uncertainty. At the same time, we are expanding our own collection efforts and our partnerships with the states, interstate commissions, industry and others to collect and analyze critical data. On the west coast, NOAA Fisheries is active in several partnerships to improve the quality and quantity of information for marine resource stewardship. One of these partnerships is the Pacific Fisheries Information Network (PacFin), a cooperative state and federal data collection and management program coordinated by the Pacific States Marine Fisheries Commission for the entire west coast. A second example is the use of new Magnuson-Stevens Act provisions to compensate vessel operators with fish for participating in the conduct of cooperative marine resource surveys. Just this last year, our Northwest Fisheries Science Center expanded its ability to collect basic data necessary for stock assessments by contracting with four private fishing vessels to conduct the annual slope species groundfish trawl survey with as much as one half of their financial compensation coming from the guaranteed opportunity to take a special allocation of fish. Such federal-state partnerships are an important mechanism for providing reliable fisheries statistics while sharing resources and reducing duplicative efforts. Reliable fisheries statistics will allow the management process to work successfully, increasing commercial and recreational fishing opportunities and ensuring jobs for fishermen—not only for today, but for years to come.

REAUTHORIZATION ISSUES

We are still working to understand and effectively implement the changes to fishery management policies and procedures made by the SFA. Consequently, we would not propose major changes to the Magnuson-Stevens Act at this time. However, we have identified some revisions of existing provisions that may be useful to make the management process more efficient and to resolve some relatively minor problems. We currently are reviewing various issues raised by the task force, the Councils, and some of our stakeholders. Among the issues identified are the following:

Review process for fishery management plans, amendments, and regulations: The SFA attempted to simplify and tighten the approval process for management plans and regulations. However, one result of that effort has been two distinct review and implementation processes—one for plans and amendments and another for implementing regulations. This essentially uncouples the review of plans and amendments from the process for regulations, and as a result, the decision to approve or disapprove a plan or amendment may be necessary before the end of the public comment period on the implementing regulations. We are considering amendments that would modify the process to address this issue.

In addition, the Committee may wish to consider reinstating the initial review of fishery management plans and amendments by the Secretary. Considerable energy and staff resources are expended on plans or amendments that are ultimately disapproved because of serious omissions and other problems. At present, two to three months must elapse before the Secretary makes his determination, and if the amendment is then disapproved, it can be months or longer before the Council can modify and resubmit the plan or amendment. While the initial review was eliminated by the SFA to shorten the review process, reinstating Secretarial review may actually provide a mechanism to shorten the time it takes to get a plan or amendment approved and implemented.

Restrictions on data collection and confidentiality: The Magnuson-Stevens Act currently restricts the collection of economic data from processors. Removal of this restriction could improve the quantity and quality of information available to meet the requirements of the laws requiring social and economic analysis. In addition, the SFA changed the term "statistics" to "information" in the provisions dealing with data confidentiality. The change has raised questions about the intended application of those provisions, particularly with respect to observer information, and Congressional clarification would be useful.

Coral reef protection: Special management areas, including those designated to protect coral reefs, hard bottoms, and precious corals, are important commercial resources and valuable habitats for many species. Currently, the federal government has the authority to regulate anchoring and other activities of fishing vessels that affect fish habitat. However, we remain concerned with threats to those resources from non-fishing vessels. We intend to work with other federal agencies to suggest amendments to the Act to clarify, consolidate, and strengthen the federal government's authority to regulate the actions of any recreational or commercial vessel that is directly impacting resources being managed under the Magnuson-Stevens Act.

Caribbean Council jurisdiction: The current description of the Caribbean Council limits its jurisdiction to Federal waters off Puerto Rico and the U.S. Virgin Islands. As a result, the Council cannot develop fishery management plans governing fishing in Federal waters around Navassa Island or any other U.S. possession in the Caribbean. Jurisdiction of the Caribbean Council could be expanded to cover Navassa Island, by including "commonwealths, territories, and possessions of the United States" within the description of that Council's authority.

Council meeting notification: To meet the notification requirements of the Magnuson-Stevens Act, Councils spend tens of thousands of dollars a year to publish meeting notices in local newspapers in major and/or affected fishing ports in the region. By contrast, fax networks, mailings, public service announcements, and notices included with marine weather forecasts are much less expensive and could be more effective in reaching fishery participants and stakeholders. The Committee may wish to consider modifying notification requirements to allow Council use of any means that will result in wide publicity.

We look forward to working with Congressional members on high-priority policy issues such as observer programs, individual fishing quotas, and funding and fee authorities, although, at this time, we have no specific recommendations for changes in the Magnuson-Stevens Act to address these issues. We will continue to work closely with the west coast delegation; the Pacific Fishery Management Council; and our stakeholders to resolve problems affecting west coast fisheries. Madame Chair, this concludes my testimony. Thank you for the opportunity to discuss the implementation and reauthorization of the Magnuson-Stevens Act. I am prepared to respond to any questions you and members of the audience may have.

Senator SNOWE. Thank you, Ms. Dalton.

Mr. Lone.

STATEMENT OF JIM LONE, CHAIRMAN, PACIFIC FISHERY MANAGEMENT COUNCIL

Mr. LONE. Good morning, Madam Chair and Committee members. My name is Jim Lone. I chair the Pacific Fishery Management Council.

This is a challenging time for fisheries management on the west coast. Several important salmon and groundfish stocks are depressed or overfished, and our fishing industry is severely overcapitalized. Recently, this Council sent letters to the Governors of the three west coast States, warning them of a potential disaster in the groundfish fishing industry.

On July 29th of 1999, you received the joint recommendations of the eight Regional Councils for the reauthorization of the Magnuson-Stevens Act as an attachment to the testimony of Mr. Rick Lauber, Chairman of the North Pacific Council. The Pacific Council fully endorses those recommendations.

In particular, we want to emphasize our support of the recommendations to rescind the moratorium on individual fishing quotas and provide discretionary authority to establish fees for observer programs. The Pacific Council has fishery management plans for three fisheries: groundfish, salmon, and coastal pelagic species. Work is progressing on development of a fourth plan for highly migratory species.

The Pacific Council and NMFS have completed and implemented amendments to the groundfish and coastal pelagic species FMP's to meet the requirements of the SFA. Amendments to the salmon FMP were delayed due to an existing commitment to update the entire plan and its environmental impact statement. The Council approved the salmon plan amendment in March 1999, and they should be implemented this year.

Regarding groundfish, overcapitalization is the single most important issue challenging the west coast fishing industry and this Council. For years, national policy encouraged industry growth and development as we Americanized the groundfish fishery. The Pacific Council took steps to reduce capitalization by establishing a groundfish license limitation program that took effect in 1994.

We also took steps toward better management of the sablefish fishery by developing an individual fishing quota program. We delayed action on the IFQ program in response to strong signals from Congress. With the 1996 reauthorization, we lost the ability to implement an IFQ program. We strongly support an end to the moratorium on IFQ's. We believe we need this management tool as a means to stabilize the industry and rebuild stocks.

On the west coast, we are now facing the results of years of inadequate funding for research and data collection. There is widespread concern about the quality and quantity of scientific information on current stock conditions. The decisions we make based on this information are vigorously questioned.

And I have appended three letters to my testimony which document the funding issues in more detail.

Regarding future reauthorization of the Magnuson-Stevens Act, it is our opinion that if NMFS and the Councils cannot conduct the basic stock assessments and collect the necessary fishery information, the system will not be able to make good management decisions regardless of how the law is constituted.

Turning to salmon, over the last several years, many salmon stocks have been at chronic low levels, and several have been listed under the Endangered Species Act. The ongoing low stock levels are currently more the result of longstanding and continued degradation of freshwater habitat and unfavorable marine survival than of any continuing impacts of fisheries. Despite some draconian fishery reductions by the Council, beginning in the early 1990's, little or no recovery is evident for most of the salmon stocks listed as overfished.

Turning to coastal pelagic species, spurred by requirements of the SFA, increased abundance of Pacific sardine, and high demand for market squid, the Pacific Council greatly expanded the scope and authority of the FMP. Of particular interest in the Pacific Northwest is the expansion of effort in Pacific sardine fisheries off Oregon and Washington. Favorable oceanic and climatic conditions

have caused an increase in both biomass and geographic range of Pacific sardine.

In response, fishers and processors have become interested in these new fishing opportunities, which may compensate for reductions in groundfish optimum yields. However, any expansion in capacity will have to be managed carefully, so as to avoid the problem of another overcapitalized fishery in the future, as sardine abundance will naturally decrease in response to changing oceanic conditions.

In summary, Madam Chair, the Pacific Council fully supports the intent of the Magnuson-Stevens Act and, with certain exceptions previously noted, has developed workable plan amendments to implement it. Moreover, the Council has begun development of a strategic plan to address the major groundfish issues and to help move the fisheries toward recovery and prosperity.

To implement the strategic plan, we will likely need legislation and financial support to help reduce the number of fishing vessels that harvest fish off the west coast and to collect the necessary data for competent management. We appreciate the efforts and attention Congress has given to improve and guide our management through passage of the SFA and in your current efforts to make further beneficial changes in our fishery management.

We hope that our comments to you today have been helpful, and we thank you again for this opportunity.

[The prepared statement of Mr. Lone follows:]

PREPARED STATEMENT OF JIM LONE, CHAIRMAN, PACIFIC FISHERY MANAGEMENT COUNCIL

Madame Chairman and Committee members:

My name is Jim Lone. I chair the Pacific Fishery Management Council (Pacific Council). Thank you for this opportunity to offer comments related to implementation of the 1996 Sustainable Fisheries Act (SFA) and the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

This is a challenging time for fishery management on the west coast. Several important salmon and groundfish stocks are depressed or overfished and our fishing industry is severely overcapitalized. Recently, this Council sent letters to the governors of the three west coast states, warning them of a potential disaster in the groundfish fishing industry. Many small fishing businesses are in danger of failing this year, or in the near future. It is likely the crisis comes from the combined effects of a change in the ocean environment, inadequate scientific data collection and analysis, and a national policy that encouraged capital infusion into the fishing industry.

On July 29, 1999, you received the joint recommendations of the eight regional Councils for the reauthorization of the Magnuson-Stevens Act as an attachment to the testimony of Mr. Richard Lauber, Chairman of the North Pacific Fishery Management Council.[1] The Pacific Council fully endorses those recommendations. In particular, we want to emphasize our support of the recommendations to rescind the moratorium on individual fishing quotas and provide discretionary authority to establish fees for observer programs. The rest of my comments will be specific to the management experience and recommendations of the Pacific Council.

The Pacific Council has fishery management plans (FMP) for three fisheries—groundfish, salmon, and coastal pelagic species (CPS; e.g., anchovy, sardines, and mackeral). Work is progressing on development of a fourth plan for highly migratory species (tunas and billfish). The Pacific Council and National Marine Fisheries Service (NMFS) have completed and implemented amendments to the groundfish and

[1] The collective recommendations were presented on July 22, 1999 to the House Subcommittee on Fisheries Conservation, Wildlife, and Oceans by Mr. Joseph Brancaleone, Chairman of the New England Fishery Management Council.

coastal pelagic species FMPs to meet the requirements of the SFA.[2] Amendments to the salmon FMP were delayed due to an existing commitment to update the entire salmon FMP and its environmental impact statement. The Council approved the salmon plan amendments in March 1999 and they should be implemented this year.

GROUNDFISH

Overcapitalization is the single most important issue challenging the west coast fishing industry and this Council. For years, national policy encouraged industry growth and development as we "Americanized" the groundfish fishery. We didn't recognize quickly enough that we had achieved that goal. The Pacific Council took steps to stem the tide by establishing a groundfish license limitation program that took effect in 1994. We also took steps toward better management of the sablefish fishery by developing an individual fishing quota (IFQ) program. We delayed action on the IFQ program in response to strong signals from Congress. With the 1996 reauthorization, we lost the ability to implement an IFQ program. We strongly support an end to the moratorium on IFQs. We believe we need this management tool as a means to stabilize the industry and rebuild stocks.

On the west coast, we are now facing the results of years of inadequate funding for research and data collection. There is widespread concern about the quality and quantity of scientific information on current stock conditions. The decisions we make based on this information are vigorously questioned. Some believe on-the-water observations by fishermen indicate the Pacific Council's harvest restrictions are not justified. Others believe the Council should be even more restrictive until the science supports greater exploitation. We are also required to assess the social and economic impacts of management on the fishing industry and communities, yet we are not provided adequate funds. We are required to reduce bycatch, yet we have no funds for an observer program to collect bycatch data. I have appended three letters to my testimony which document the funding issue in more detail.[3]

Regarding future reauthorization of the Magnuson-Stevens Act, it is our opinion that if NMFS and the Councils cannot conduct the basic stock assessments and collect the necessary fishery information, the system won't be able to make good management decisions regardless of how the law is constituted. Simply put, we cannot do the job you want us to do, and the job we want to do, without the necessary resources.

In line with our need for more and better information, the Council needs discretionary authority to establish fees to help fund observer programs. This authority would be the same as granted to the North Pacific Council under Section 313 of the Magnuson-Stevens Act. In the long term, the fishing industry may be able to shoulder more of the costs to reduce overcapitalization and monitor the catch. In the short term, however, our industry cannot afford these additional burdens.

SALMON

The SFA required little substantive change in the way we manage salmon. Over the last several years, many coho and some chinook salmon stocks have been at chronic low levels and several have been listed under the Endangered Species Act. However, for the most part, the management of salmon under the current FMP already met the more conservative definition of optimum yield contained in the SFA. The ongoing low stock levels are currently much more the result of long-standing and continued degradation of freshwater habitat and unfavorable marine survival than of any continuing impacts of fisheries. Despite some draconian fishery reductions by the Council beginning in the early 1990s, little or no recovery is evident for most of the salmon stocks listed as overfished. The numerous variables affecting abundance make it impossible to specify a time period in which an overfished salmon stock will be rebuilt.

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[2] The section on bycatch in the groundfish FMP, and the sections on bycatch and maximum sustainable yield for squid in the coastal pelagic FMP were not approved and are being modified by the Council at this time.

[3] The following three letters are appended to this testimony to document recent and future Council funding needs:

(1) Letter of December 22, 1998 from Mr. Lawrence D. Six, Executive Director, Pacific Fishery Management Council, to Dr. William Hogarth and Mr. Will Stelle, NMFS.

(2) Letter of December 14, 1999 from Mr. Robert K. Mahood, Executive Director, South Atlantic Fishery Management Council, to Mr. Alan Risenhoover, NMFS.

(3) Letter of December 17, 1999 from Mr. Pete Moffitt, Chairman of the South Atlantic Fishery Management Council, on behalf of the Regional Council Chairmen, to Ms. Penny Dalton, Assistant Administrator for Fisheries, NMFS.

The biggest change in salmon management under the SFA has been the inclusion of the description and identification of essential fish habitat and the consultation requirements it includes. Since Amendment 14 to the salmon FMP has not yet been implemented, it is not possible to determine the impacts of the essential fish habitat requirements. However, considerable public input during the amendment process indicates opposition among the general business community to the breadth of the essential salmon habitat description. There is a fear of additional permit requirements and delays in land use or development projects. This is especially pertinent for salmon due to the inclusion of thousands of miles of freshwater streams. Conversely, we have received numerous comments deploring the lack of teeth in the essential fish habitat measures to require compliance with NMFS or Council recommendations. The extent of increased workload for the Councils and NMFS remains in question. We view the SFA essential fish habitat requirements as a logical, though controversial, step in increasing the recognition of the importance of salmon habitat and ensuring its protection and restoration, which is vital to long-term salmon recovery.

COASTAL PELAGIC SPECIES

The most significant impact of the SFA on coastal pelagic species (CPS) fisheries was expansion of the FMP. Spurred by requirements of the SFA, increased abundance of Pacific sardine, and high demand for market squid, the Pacific Council greatly expanded the scope and authority of the FMP. Of particular interest in the Pacific Northwest, is the expansion of effort in Pacific sardine fisheries off Oregon and Washington. Favorable oceanic and climatic conditions have caused an increase in both biomass and geographic range of Pacific sardine. In response, fishers and processors have become interested in these new fishing opportunities which may compensate for reductions in groundfish optimum yields by providing opportunity to use idle fishing and processing capacity. There is also potential for increased investment in fishing and processing capacity. With any expansion in capacity, it is likely the Council will have to grapple with an overcapitalized fishery in the future, as sardine abundance will naturally decrease in response to changing oceanic conditions. There is also concern that expanding sardine fisheries in Oregon and Washington could catch significant numbers of Pacific salmon (as bycatch). Preliminary data and information from fishers indicate that incidental catch of salmon is minimal, and the industry is working with the states to develop ways to minimize salmon bycatch and bycatch mortality.

SUMMARY

In summary, Madame Chairperson, the Pacific Council fully supports the intent of the Magnuson-Stevens Act and, with certain exceptions previously noted, has developed workable plan amendments to implement it. Moreover, the Council has begun development of a strategic plan to address the major groundfish issues and to help move the fisheries towards recovery and prosperity. To implement the strategic plan, we will likely need legislation and financial support to help reduce the number of fishing vessels that harvest fish off the west coast and to collect the necessary data for competent management. We appreciate the efforts and attention Congress has given to improve and guide our management through the passage of the SFA and in your current efforts to make further beneficial changes in our fishery management. We know that there are many other interests throughout the nation competing for your attention and funding. We hope that our comments to you today have been helpful and will try to be responsive to any other information or input you may need. Thank you again for this opportunity. I will be happy to answer any questions you or the other Senators may have.

Pacific Fishery Management Council
2130 SW Fifth Avenue, Suite 224
Portland, Oregon 97201

Jerry Mallet, Chairman
Lawrence D. Six, Executive Director

December 22, 1998

Dr. William Hogarth, Regional Administrator
Southwest Region
National Marine Fisheries Service
501 W Ocean Blvd., Suite 4200
Long Beach, CA 90802–4213

and

Mr. Will Stelle, Regional Administrator
Northwest Region
National Marine Fisheries Service
7600 Sand Point Way NE, BIN C15700
Seattle, WA 98115–0070

Dear Bill and Will:

Representatives of the Pacific Fishery Management Council (Council) and Pacific States Marine Fisheries Commission met December 10, 1998, with representatives of the National Marine Fisheries Service (NMFS) Northwest Region (NWR) and Southwest Region (SWR); and Alaska Fisheries Science Center (AFSC), Northwest Fisheries Science Center (NWFSC), and Southwest Fisheries Science Center (SWFSC) to develop a consensus package of budget initiatives to meet Council information needs for fiscal year (FY) 2001. We agreed on nine major initiatives, which are described below. We recommend this package be submitted to NMFS headquarters by mid January as input into formulation of the President's FY 2001 budget request. These initiatives are not presented in priority order. They represent the highest priority needs, which were boiled down from a long list of needed projects identified by the Council and participants at the December 10 meeting. This package addresses Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) mandates only. We did not attempt to address marine mammals, protected species, or other NMFS mandates.

In addition, the group expressed support for seven other activities, most of which are national in scope and critically important to successful implementation of the Magnuson-Stevens Act. These efforts are described after the west coast initiatives.

Finally, as a result of our discussion of FY 2001 needs, it became apparent there are significant shortfalls in funding for critical west coast programs in FY 1999 and potentially for FY 2000. These shortfalls are described herein.

West Coast Initiatives Implementing Magnuson-Stevens Act in FY 2001

1. Maintain and Enhance the Pacific Fishery Information Network (PacFIN)—$1,166,000

This initiative has two components: improving economic data collection and increased port sampling of groundfish landings. The augmentations are in addition to the base program of $3.0 million for PacFIN. With enhancements, the total amount needed is $4,166,000.

- Economic Data Collection—$700,000

Economic data is needed to develop and implement fishery management plans, assess the effects of those plans, and fairly allocate limited resources among competing users. Further, the courts in two recent cases have overturned management decisions, because the accompanying economic analysis was insufficient. This initiative will implement the Economic Data Plan, which was developed by Council, NMFS, and other economists and then adopted by the Council. Funds are needed to implement the plan beginning in FY 2000 and annually thereafter.

- Increased Port Sampling—$466,000

Current funding is not adequate to sample nontrawl groundfish fisheries, including the open access fishery and the live-fish landings. Additional samplers in California, Oregon, and Washington would provide the necessary coverage at a cost of $466,000.

2. Maintain and Enhance the Recreational Fishery Information Network—$1,082,000

As the Council more actively manages the recreational fishery for groundfish, it is apparent the current marine recreational fishery statistics program on the west coast is not providing adequate information for management purposes. There is a need for more reliable estimates by species, time, and area on a finer scale. Sampling of anglers needs to be increased, and the method of estimating effort needs to be improved. The current funding allocation for the west coast intercept survey is $918,000, which does not even provide for a 12-month effort. An additional $1,082,000 is needed to bring the total to $2,000,000.

3. Improve and Expand Groundfish Surveys and Stock Assessments—$3,500,000

GOAL: Build a scientifically sound resource survey and stock assessment program in the NWFSC and SWFSC and transition to allow redirection of the AFSC resources to critical stock assessment problems off Alaska.

BACKGROUND: Commercial, recreational, and tribal harvest of the 83 species of west coast groundfish is important to communities along California, Oregon, and Washington. An investment in improved monitoring of these species is necessary to guard against inadvertent overharvest due to lack of adequate scientific information and to reduce the need for precautionary harvest reductions. The scientific basis for safe harvest levels typically comes from stock assessment models which incorporate resource survey and fishery data. The critical need for fishery-independent resource survey data is one of the primary recommendations in the National Research Council's review of stock assessment methods. A scientifically sound stock assessment program will conduct frequent and timely assessments for all species groups; will include relevant ecological, social, and economic information in these assessments; and will engage in sufficient outreach to build public understanding and trust in assessment results. The resource survey program would conduct frequent standardized surveys of each major fish assemblage, including adult and prerecruit life stages and would engage in research to understand how environmental factors affect survey results and to improve the calibration of the survey methods. A combination of acoustic, trawl, egg/larval, hook-and-line, and new advanced technologies is needed to cover the complexity of life stages and habitats for groundfish. The program requires both a Fisheries Research Vessel (FRV) and chartered vessels to deploy appropriate survey methods over the entire west coast range of the species. The FRV would focus on studies that require specialized equipment, high levels of standardization, and multi-sampler projects. Multiple charter vessels would be used for surveys that must cover broad geographic areas in short time periods.

PROPOSAL: The expanded west coast survey and stock assessment program will be able to provide critical information for management of west coast groundfish. The program will conduct an annual bottom trawl survey covering the depth range of nearshore flatfish, shelf rockfish, and deep slope species. Such a survey was broadly endorsed by a science/industry workshop in 1998. The program will conduct a hydroacoustic survey for whiting, develop and deploy new survey methodology for nearshore rockfish, and conduct specialized surveys such as fixed gear surveys for sablefish and recruitment surveys for key species. The enhanced stock assessment program will be able to turn these expanded survey results into timely, comprehensive, and well-understood recommendations on safe harvest levels for west coast groundfish.

New Funding Need: $3,500,000, plus access to a FRV, plus use of an allocation of the annual quota to partially compensate chartered vessels.

4. Groundfish Observer Program—$4,700,000

Reliable estimates of total catch of west coast groundfish are not available because of unknown amounts of discard at sea caused by regulations and markets. Current estimates of discards are based on old and very limited studies. A comprehensive observer program covering all gears and areas is required to obtain reliable estimates of total catch. This information is needed before the Council can adequately address the mandate to minimize bycatch. Given the economic condition of the industry as a result of reduced optimum yields, an industry-funded program is not feasible. Federal funding is required. The estimated annual cost of an observer program, including NMFS infrastructure, is $4,700,000.

5. Essential Fish Habitat (EFH)—$1,000,000

There are three components to this initiative: marine reserves, gear impacts, and habitat areas of particular concern. Total annual long-term costs are $1,000,000.

• Marine Reserves

Areas closed to fishing are widely viewed as having potential to protect EFH and marine ecosystems and to serve as important tools for fishery management. There is a pressing need to gather the socioeconomic and scientific data required to rigorously evaluate marine reserves as a fishery management tool on the west coast. This will require research to identify the management needs that may be achievable through marine reserves (e.g., which species and life stages), design optimal reserves through modeling, and implement these designs through field testing to evaluate the potential benefits. A major component of this initiative will involve socioeconomic studies of interested parties from potentially affected groups (e.g., tribal, other governmental, recreational, commercial, community, and environmental) to improve consideration of social needs and desires and to foster acceptance of results and potential designation of marine reserves for fishery management purposes.

• Gear Impacts on Habitat

The Magnuson-Stevens Act requires the regional fishery management Councils to minimize to the extent practicable adverse effects on habitat caused by fishing. Information on the effects of fishing gear on west coast habitat is inadequate. There is a need to (1) evaluate the effects of trawl, longline, and pot gears on a variety of bottom habitats on the west coast; (2) conduct experiments to identify the short-term and long-term effects of gear deployment and of repetitive deployment (e.g., in situ studies of trawling and other gear impacts on the benthos); (3) as feasible, implement a program to obtain longline effort information; and (4) conduct experiments (e.g., with modifications to gear or fishing practices, areas, or times) to test ways to reduce adverse effects and develop recommendations that may be implemented.

• Habitat Areas of Particular Concern (HAPCs)

To support the evaluation of marine reserves and EFH consultation efforts, NMFS should (1) identify marine HAPCs for groundfish, salmon, and coastal pelagic species (CPS) off the west coast; (2) inventory and increase accessibility to available data from state, federal, tribal, and private sources and include the information in a global information system (GIS); (3) identify data gaps and research needs; and (4) evaluate the condition of these HAPCs, if known, and recommend necessary conservation measures.

6. Salmon Encounter Rates and Hooking Mortality—$100,000

The ability to harvest salmon from hatchery programs and other healthy salmon stocks without risking the continued existence of some weak stocks, including those listed under the Endangered Species Act (ESA), depends on accurate estimates of hook-and-release mortality rates and encounter rates in fisheries. The Council has appointed an ad-hoc committee to address additional research needs related to estimates of hooking mortality and encounter rates. At this juncture it is clear that adequate estimates of encounter rates are lacking, and this situation must be rectified. Additional research needs may be forthcoming from the ad-hoc committee and Council in the future. Encounter rates vary with relative stock abundances and ocean conditions as well as gear and fishery. A program to have fishers report encounters, coupled with a limited observer program, was successful in 1995 to 1997, but discontinued in 1998 due to a lack of funds. Such a program needs to be done annually to provide in-season measures of encounter rates and develop a long-term data base for prediction. This could be combined with stock identification research to provide real-time fishery assessment capabilities. An additional $100,000 per year is required to address this need.

7. Application of Genetic Stock Identification for Salmon Management—$300,000

Increased listing of salmon stocks under the ESA and implementation of mass marking and selective fishery programs will require much more intensive evaluations of mixed salmon harvests in the future. No single method will be able to provide all the necessary information; rather, a variety of approaches will be required, including coded-wire tags and other physical marks, genetic stock identification (GSI), otolith marking, and perhaps others. Under the aegis of the Pacific Salmon Treaty (PST), GSI research has produced a coastwide data set that is used for stock composition in PST-related fisheries. Work should be expanded into three areas: (1) extend the use of GSI analysis of chinook salmon populations into areas of southern Washington, Oregon, and California. This will provide the capability to respond to Council and ESA mandates in fisheries not directly related to the PST; (2) initiate the use of molecular markers for GSI of coho salmon. Although most of the major populations of coho salmon have been examined for protein genetic variation and

regional patterns of variability have been described, additional research is required to use genetic markers for mixed-fishery analysis; and (3) initiate genetic stock identification of chinook and coho salmon juveniles in coastal and estuarine waters. Although the early migration patterns of hatchery-reared juveniles have been studied to some extent with coded-wire tags, little is known about the coastal migratory habits of juveniles from wild populations. Identification of populations of origin is an important element in interpreting the results of ongoing ecological studies of early life-history stages in coastal waters. This phase of the research would utilize juvenile samples collected as part of other research projects. All three phases will be accomplished by extending and updating the protein genetic baseline for chinook and coho salmon populations, analyzing mixed-stock fisheries with current statistical procedures, and developing the use of DNA markers for GSI estimations for chinook and coho salmon. New funding needed is $300,000 per year.

8. Coastwide Coastal Pelagic Species Assessments—$660,000

The recently adopted fishery management plan for CPS includes two actively-managed species, Pacific sardine and Pacific (chub) mackerel. Both of these stocks now span thousands of miles of coastline from British Columbia to southern Baja California. The biomass of sardine has climbed to about 1.2 million tons, a level not seen for over 50 years, and the biomass of mackerel is around 130,000 tons. These estimates, based on many assumptions, are very uncertain and may be underestimated, because no coastwide measure of abundance exists. A coastwide abundance estimate is needed to ground-truth the biomass assessment models. A survey approach is proposed that combines simultaneous (April) acoustic trawl surveys (ATS) (a precise relative measure of biomass) and daily egg production (DEP) surveys (an absolute measure of biomass). The ratio between ATS and DEP surveys in the south (Mexico and California) will be used to calibrate ATS surveys off Oregon and Washington. Two chartered commercial fishing vessels (30 days each) will be used along with data collected from routine April survey data from existing CalCOFI and IMECOCal (Mexico) surveys. The work will be a cooperative project involving the SWFSC and NWFSC. Costs are estimated to be $660,000 per year.

9. Development of an Economic and Social Science Program—$1,300,000

The National Oceanic and Atmospheric Administration (NOAA) must develop an infrastructure for the social sciences and incorporate these disciplines in the living resource management processes, including strategic placement of economists, anthropologists, and sociologists. Good social science programs should be located in each of the NMFS Science Centers. The NWFSC needs full time employees (FTEs) to institute a program, and the SWFSC needs additional FTEs to expand its program to needed areas. For a solid infrastructure, social science FTEs should also be strategically located within regional offices and Councils. These FTEs are needed to apply the available data and scientific analyses to the policy, decision, and regulatory requirements associated with Executive Order 12866, Magnuson-Stevens Act, the Regulatory Flexibility Act, National Environmental Policy Act, and ESA. The NMFS NWR and SWR need FTEs to address the new Magnuson-Stevens Act requirements and to address upcoming capacity/fleet reduction programs and user group allocation issues. The NMFS NWR and SWR also need FTEs to meet the growing policy and regulatory demands associated with habitat restoration and protected resource/ESA issues. To establish a good program within the NMFS NWR and NWFSC, and to appropriately expand the NMFS SWR and SWFSC program, $1.3 million is needed.

Support of Other Budget Initiatives for FY 2001

Ecosystem Management

The Magnuson-Stevens Act mandated appointment of an advisory panel to develop recommendations to expand the application of ecosystem principles in fishery conservation and management activities. The panel's final report is imminent. The eight regional fishery management Council chairs listed ecosystem management as one of the priority activities which should be funded in the NMFS budget.

Minimize Bycatch and Bycatch Mortality

A new national standard in the Magnuson-Stevens Act calls for bycatch to be minimized to the extent practicable. A national effort is needed to address this vital mandate. On the west coast, an initial step must be to implement a comprehensive groundfish observer program to document the extent of bycatch and bycatch mortality.

Increase Regional General Counsel for Fisheries Staff

Regional offices of NOAA General Counsel are understaffed and cannot provide timely reviews of numerous Council and NMFS actions under the Magnuson-Stevens Act. This is particularly a problem at the NMFS NWR. Additional attorneys are needed.

Highly Migratory Species in the Pacific

We support NMFS SWR efforts to improve the science and management of Pacific highly migratory species. These efforts benefit the Western Pacific and Pacific fishery management Councils. The Pacific Council expects to become active in the management of highly migratory species on the west coast.

Electronic Data Collection and Fish Statistics

On the west coast, there is a pilot program to evaluate electronic recording of logbook data. The Council supports expansion of electronic data systems (including fishtickets and logbooks) on the west coast in FY 2001 and beyond.

Enforcement

Council-approved management measures are only as good as our capability to enforce them. Enforcement resources on the west coast are stretched to the limit. They cannot adequately cover certain existing fisheries, such as the live-fish fishery, and will not be adequate to enforce significant new programs, such as individual quotas, which are anticipated in the year 2000 and beyond.

Klamath and Trinity Rivers Chinook Escapement Estimation

The critical effort to estimate the spawning escapement of chinook salmon in the Klamath and Trinity rivers is in danger of not being funded in 1999 and beyond. NMFS should make sure that this program is funded by the Bureau of Reclamation or other entity.

Critical Funding Shortfalls in FY 1999

NMFS SWFSC

NMFS SWFSC, La Jolla laboratory, has lost its only stock assessment modeler (Dr. Larry Jacobson). Owing to the SWFSC deficit, the position will not be filled after Dr. Jacobson's departure in January 1999. This is clearly a loss of a most vital function for a fishery laboratory (see Natural Resource Consultants report Improving Fish Stock Assessments). This has grave consequences for the Council and the La Jolla laboratory, because it will not be able to carry out its fishery responsibilities in the NMFS SWR including: pending stock assessments on mackerel and sardine under the new CPS plan; SWFSC support for groundfish stock assessments; assessment modeling on the Highly Migratory Species Plan Development Team; subsequent stock assessments for west coast tunas, billfish, and sharks. The loss is also of deep concern to California Department of Fish and Game (CDFG), because it closes a long-term stock assessment support provided to CDFG as part of joint research carried out over the last 25 years. Salary range for a Senior Stock Assessment Specialists for NMFS (level GS–14) ranges from about $69,000 to $90,000 per year.

Elimination of overtime at NMFS SWFSC will eliminate the collection of data needed for trends in abundance collected by CalCOFI surveys for mackerel, sardine, and various groundfishes. For the two CPS species it is the primary source of information for trends in abundance, and without it we will be totally blind to changes in abundance.

NMFS NWFSC

NMFS NWFSC has identified a shortfall of approximately $400,000 to conduct the late summer slope bottom trawl survey using chartered fishing vessels in 1999. This was a successful cooperative program begun in 1998, which the Council believes must continue. The research vessel (R/V) Miller Freeman is expected to be available in 1999 to conduct the late fall slope survey on the west coast, but there are insufficient days at sea for the necessary level of sampling (see NMFS AFSC below).

NMFS AFSC

There are insufficient days at sea for the necessary level of sampling for the west coast slope survey aboard the R/V Miller Freeman. The Council encourages NMFS to find the necessary funds to cover this need.

In closing, we hope you agree with these high priority research needs and submit them as regional input into the FY 2001 budget request. Also, it is critical that funding shortfalls in FY 1999 and 2000 be addressed. I thought the December 10 session was extremely productive in achieving a consensus package, and I look for-

ward to continuing this process each year. Thank you for your support of the Council fishery management process.

Sincerely,

Lawrence D. Six
Executive Director

South Atlantic Fishery Management Council
One Southpark Circle, Suite 306
Charleston, South Carolina 29407–4699

Pete Moffitt, Chairman
Fulton Love, Vice-Chairman
Robert K. Mahood, Executive Director
Gregg Waugh, Deputy Executive Director

December 14, 1999

Memorandum
To: Alan Risenhoover
From: Bob Mahood
Subject: Regional Councils' 2002 Funding Request

The Councils appreciate the opportunity to participate in the DOC/NOAA/NMFS budget process. Based on your guidance we are submitting our request in a format compatible with the development of NMFS's 2002 budget. Our budget request consists of two parts, administrative funding and programmatic funding, however, the total requested should be maintained as one amount under the Regional Fishery Management Council line item in the NMFS budget. The administrative funding level requested will allow the Councils to conduct and improve current management programs in a continuing effort to meet the mandates of the Sustainable Fisheries Act. The programmatic funding requested will allow the Councils to address specific information and data needs that are essential for managing our fisheries.

Recommendations for funding priorities: The Councils are requesting a total funding level of $19,047,000 ($15,624,000 in administrative funds and $3,423,000 in programmatic funds). The total funding requested represents a 12% increase over the Councils' 2001 budget request. The administrative portion of the funding request represents a modest increase of 9% per year over the Councils' 2000 budget and is our highest priority. The administrative funding level requested is necessary to maintain, and in some cases expand, current management activities to meet the mandates of the SFA. Programmatic funds have not been available to the Councils since the 1980's. We believe if funding above our administrative (basic operational) requirements can be obtained the Councils will be in a position to help NNIFS address critical data needs on a real time basis.

BUILD SUSTAINABLE FISHERIES: Most Council activities fall under building sustainable fisheries. The SFA passed in 1996 significantly increased the Councils' management responsibilities and we are still struggling to obtain the financial resources to meet those responsibilities. The Act will be reauthorized in 2000 or 2001 and the Councils will respond accordingly to any new requirements that result from changes to the Act.

To continue basic Council operations/activities at current levels in 2002 (allowing for anticipated increases in fixed costs such as personnel, facilities, etc.) will require $14,387,000. Mandated expansion of current programs will require $1,167,000 and additional needed infrastructure costs will require $70,000.

New Initiatives—$3,423,000 (main focus of programmatic funds)

- Develop plans for and/or conduct (contract) data collection programs to fill the gaps in the data necessary to meet the required provisions of the Magnuson-Stevens Act, specifically in the areas of EFH, bycatch, stock assessments, overfished species (MSY biomass determinations), fishing communities, and economic and social assessments.
- Establish recreational fishery data collection programs or enhance existing programs.

Expansion of Current Programs—$1,167,000

- Develop new FMPs and/or amend current FMPs to meet management goals of rebuilding overfished species; achieving MSY and OY; and addressing EFH, bycatch and fishing communities.
- Address development of ecosystem management.

• Develop new or refine existing limited access, EFQ/ITQ and other similar programs.
• Assess and improve reporting and monitoring programs.
• Conduct comprehensive reviews of various FMPs to determine their effectiveness.
• Coordinate international species management.
• Enhance public information/education dissemination.
• Manage Pacific HMS.

Address Current Shortfalls—$1,850,000

• Funds are currently not available for the Councils to:
—meet the SFA requirements relative to EFH, bycatch, overfishing and fishing communities
—conduct international fisheries management
—develop and monitor marine reserves
—establish observer and other reporting and monitoring programs
—address issues related to seabird interactions, marine debris, endangered species and marine mammals

Infrastructure Costs—$70,000

• Increase in Council office space and/or costs.
• Develop video conference capability in some areas.

RECOVER PROTECTED SPECIES: The Councils have some management activities that fall under this category, such as minimizing protected species interactions and impacts from fishing operations.

SUSTAIN HEALTHY COASTS: Council activities addressing essential fish habitat relate to this category.

If you require any further or more detailed information, or have any questions relative to our 2002 funding request, please contact me.

South Atlantic Fishery Management Council
One Southpark Circle, Suite 306
Charleston, South Carolina 29407–4699

Pete Moffitt, Chairman
Fulton Love, Vice-Chairman
Robert K. Mahood, Executive Director
Gregg T. Waugh, Deputy Executive Director

December 17, 1999

Ms. Penny Dalton
Assistant Administrator for Fisheries
National Marine Fisheries Service, NOAA
1315 East-West Highway
Silver Spring, MD 20910

Dear Ms. Dalton:

We regret you were unable to attend the budget meeting with us on October 29, 1999. A number of issues were discussed relative to the FY 2000 appropriations, the FY 2001 budget request and development of the FY 2002 budget. We also discussed ways to improve the Councils' input into the NOAA/NMFS budget process. Alan Risenhoover did his usual excellent job of briefing us on the status the budgets and provided guidance on how we could more effectively participate in the budget process for FY 2002. Following his guidance we have already submitted the Councils' FY 2002 budget request. We hope you will strongly support our request through the NMFS/NOAA/Commerce budget development process.

As you are aware, the eight regional Councils requested an appropriation of $15 million for FY 2000. The proposed funding level of $13.15 million creates a shortfall of $1.85 million which will greatly impede the Councils' ability to meet the mandates of the SFA and to manage the fisheries resources in their jurisdictions. The attached "Funding Shortfalls" document outlines the activities each Council will not be able to undertake because of the proposed budget shortfall, and the approximate additional funding that would be required to accomplish these activities. In cases where these listed activities are mandated by law the Councils will have to delay or eliminate other on going management programs if additional funding can not be obtained. We are requesting that NMFS provide the Councils with additional funding to help us do our job as specified in the Magnuson-Stevens Act. We realize you

may not be able to make up the entire $1.85 million shortfall, however, any additional support you can provide would be greatly appreciated.

If you have any questions please do not hesitate to call.

Sincerely,

Pete Moffitt
On behalf of the Regional Council Chairmen

FUNDING SHORTFALLS FOR FISHERY MANAGEMENT COUNCILS IN FY 2000

The eight regional Councils requested an appropriation of $15 million for FY 2000 to meet their fisheries management responsibilities. The proposed funding level of $13.15 million creates a shortfall of $1.85 million which will greatly impede the Councils' ability to meet the mandates of the SFA and to manage the fisheries resources in their jurisdictions. The following briefly outlines the activities each Council will not be able to undertake because of the proposed budget shortfall, and the approximate additional funding that would be required to accomplish these activities. In cases where these listed activities are mandated by law the Councils will have to delay or eliminate other on going management programs if additional funding can not be obtained.

New England Council

- Develop new FMPs for skates, red crab and shrimp
- Program for managing capacity in the groundfish and scallop fisheries
- Fund activities of the Research Steering Committee
- US/Canada relations

Additional funding needs for these activities—$500K

Mid-Atlantic Council

- EFH research to address adverse effects of fishing gear on EFH
- Conservation engineering research to address bycatch reduction

Additional funding needs for these activities—$590K (includes COLA adjustments and non-labor costs)

South Atlantic Council

- Collection/analysis of community related socioeconomic data

Additional funding needs for these activities—$75K

Caribbean Council

- Stock assessments for key FMP species
- Develop/monitor marine reserves to comply with EFH requirements

Additional funding needs for these activities—$127K

Gulf Council

- Hire consultant to write FMP/amendment regulations
- Develop amendments to address marine reserves, shrimp, spiny lobster, mackerel and vessel monitoring systems

Additional funding needs for these activities—$187K

Pacific Council

- Develop rebuilding plans for 5 species of groundfish
- Develop new HMS FMP
- Meet AFA requirements
- Marine reserves analysis
- Community impacts analysis
- Groundfish capacity reduction (strategic plan implementation)

Additional funding needs for these activities—$271K. The Pacific Council also needs $2 million to fund the proposed observer program.

North Pacific Council

- Receiving additional funds to meet needs

Western Pacific Council

- Unknown

Total additional funding needs for these activities—$1.75 million

Senator SNOWE. Thank you very much, Mr. Lone.
Mr. Anderson.

STATEMENT OF PHIL ANDERSON, SPECIAL ASSISTANT TO THE DIRECTOR OF WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

Mr. PHIL ANDERSON. Thank you, Madam Chair, and good morning. My name is Phil Anderson. I am a Special Assistant to the Director of the Washington Department of Fish and Wildlife, and I head up the Intergovernmental Policy Group.

I appreciate the opportunity to speak to you today and present the views of the Department relative to the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act.

The State of Washington has very significant interest in issues within the Pacific Fishery Management Council and the North Pacific Council forums. Washington State is the home of many vessel owners, crew members and processors that participate in fisheries managed by the North Pacific Council. Similarly, Washington coastal communities, as well as communities in Puget Sound, serve as the home for commercial and recreational fisheries managed by the Pacific Council.

The Department supports the revisions adopted by Congress in 1996 that addressed a more cautionary approach to managing the Nation's fisheries resources. The revisions have been aggressively implemented by both the Pacific and the North Pacific Councils. However, to fully implement and maintain this new course will require additional resources being made available.

Congress must be prepared to provide support to the Council process, including attainment of the necessary scientific data to manage the fisheries and implement the Act. Partnerships between the Council and the States can assist in meeting the needs of the Council. The Department of Fish and Wildlife is committed to the Council process and our partnerships with the National Marine Fisheries Service and other coastal States.

It is important that the Council have available to them management tools that are reasonable and consistent with the mandates of the Act and the National Standard Guidelines. The Pacific Council is currently struggling to address overcapacity in the face of greatly reduced harvest allowances in our groundfish fishery. In order for market forces to lessen the adverse impacts associated with capacity reduction, IFQ's must be available to the Council. We strongly recommend that the IFQ moratorium be allowed to sunset and that Congress inform the Councils of their intent as soon as possible.

Council authority to assess fishers for fishery data collection should be expanded to include the Pacific Council. Congress has so far been unwilling to pay for an observer program on the west coast groundfish fishery, and we are concerned about the fishers' ability to pay fees to support an observer program unless this cost is distributed equally throughout the fleet. Only the North Pacific Council is now authorized to collect such fees and establish a fund to recover the cost of a mandated observer program. And we believe that authority should be extended to the Pacific Council.

National Marine Fisheries Service deserves credit for their efforts to be responsive to the new direction established by the Act in 1996. It is a fact, however, that commitment alone does not get the job done. Regardless of how lean and mean the management machine is, sufficient resources must still be provided. Congress must provide additional resources to National Marine Fisheries Service to ensure timely review and approval of the regulatory amendments.

The lack of adequate data, stock assessments and 3-year intervals in trawl surveys have played a large role in the failure of our management to detect the decline of many species of groundfish on the west coast. Absent additional resources being made available to the National Marine Fisheries Service, the Council will likely fail in its effort to manage groundfish stocks responsibly. We recommend the Congress provide National Marine Fisheries Service with the necessary resources to meet the data needs for managing west coast groundfish.

The Act currently provides the States of Washington, Oregon and California interim authority, with certain exceptions, to enforce State laws and regulations against any vessel engaged in the dungeness crab fishery in the EEZ adjacent to the respective States. This authority has been a valuable tool for the Department in securing management agreements with coastal treaty tribes and has facilitated our ability to spread the effects of such agreements across all non-treaty fishers who fish in the EEZ adjacent to our State.

This authority will expire in October of 2001. We recommend extending the authority until such time as the Secretary adopts a Federal management plan for this fishery.

In summary, the Department believes that the changes made in the 1996 Act were thoughtful, timely, and will result in an improvement of the Nation's fishery resources. Successful implementation, however, will depend on Congress providing adequate tools and resources to National Marine Fisheries Service and the Councils. In short, we do not support an overhaul of the Act. A combination of new funding vehicles and resources to meet the demands of implementation will allow the Council to meet the intent of the Act.

I appreciate the opportunity to testify before you today. I would be happy to answer any questions.

Senator SNOWE. Thank you, Mr. Anderson.

Mr. Harp.

STATEMENT OF JIM HARP, TRIBAL REPRESENTATIVE, PACIFIC FISHERY MANAGEMENT COUNCIL

Mr. HARP. Madam Chairman, honorable members of the Committee, I appreciate the opportunity to testify today on behalf of 26 tribes in the Pacific Fishery Council area.

I plan today to speak to five issues that bear on the reauthorization of the Magnuson-Stevens Act and add a comment.

First, the tribal seat. In 1996, the Magnuson-Stevens Fishery Conservation and Management Act was reauthorized and amended. The tribal seat on the Pacific Fishery Management Council was

added at that time. The tribes continue their support of the tribal seat.

One small area of improvement would be for the tribal seat to be allowed designees. This addition would allow for tribal representatives from a specific area the opportunity to participate in the deliberations of fisheries within their area of interest. Currently, other government agencies represented on the Council have the ability to have designees for their seats.

This is an effective and useful process because it allows the designation of individuals with specific expertise on a regional- or stock-specific issue, and it allows the Council representative to have a stand-in when workload demands the representative be elsewhere. The tribes are again requesting consideration of amending the tribal seat on the Council that would allow this designee request to be implemented in the reauthorization process.

Second, fishery management plans. As a result of the amendments to the MFCMA in 1996, a major process of amending the various fishery management plans has been underway. While these amendments have often been useful and have dealt with needed issues, they have been very time consuming and have been a drain on the Council resources, as well as the resources of the various government agencies that work within the Council family.

Also, many serious conservation concerns are facing most of our fisheries and the regional Councils simply need more resources to deal with these additional issues. An ability to provide stipends for scientists participating in the groundfish management team, the salmon technical team and the scientific and statistical committee would help ensure that the agencies who provide these scientists can devote the time of their top staff to serve in these advisory positions.

Third, bycatch. A critical issue facing the groundfish fisheries on the west coast is bycatch. The declining trip limits for many species has aggravated the problem of dealing with bycatch. Because there is no observer program on the west coast, the Council cannot measure the amount of bycatch in our fisheries adequately. This insufficiency has complicated the Council's efforts to successfully deal with the problem. Any changes to the Act to facilitate the development and funding of an observer program would be helpful.

Individual quotas: Another important issue is that of IQ's. Currently there is a moratorium on the development and implementation of IQ's in the Pacific Council area. While the tribes recognize that this is primarily a non-Indian issue, they support the concept of IQ's. IQ's can bring a great deal of stability to the fisheries, which would benefit both the Indian and non-Indian fishers.

Fifth, stock assessments. Many of the problems facing fishery management on the west coast, especially groundfish management, have more to do with the inadequate funding for both NMFS and the PFMC rather than problems with the Magnuson-Stevens Act itself. Several of the groundfish stocks are very depleted and we have problems assessing the status of these stocks, as well as developing recovery plans.

The NMFS triennial trawl survey is an important part of our stock assessment process. However, it is not done often enough, and Congress seems to be moving away from funding adequate lev-

els of NMFS research. Currently the Council tries to do stock assessments for each species on a 3-year basis. However, this is not adequate, given the number of important species we try to manage and the number of species that are yet to be assessed. Stock assessments are expensive, but necessary, if we are to adequately manage fisheries.

A final comment. Within the reauthorization process, we request Congress to renew the commitment to the core purposes and policy statement behind the Magnuson-Stevens Act. That is, to ensure conservation and management of the national fisheries resources and to promote domestic fisheries under sound conservation and management principles. In the management of the salmon resource in the Pacific Northwest, the Pacific Council must meet the obligations as defined by the Pacific Salmon Treaty, Indian Treaty Fishing Rights, ESA, and other domestic management considerations.

Also, just as the Magnuson-Stevens Act is required to be in compliance with other applicable laws, the application of these other applicable laws needs to comply with the Magnuson-Stevens Act. In the development and application of ESA obligations, there needs to be recognition of Magnuson-Stevens Act principles that these fishery resources are managed for utilization and under the goal for attainment of maximum sustainable yield.

This concludes my testimony, and again, I appreciate your consideration of my remarks.

[The prepared statement of Mr. Harp follows:]

PREPARED STATEMENT OF JIM HARP, TRIBAL REPRESENTATIVE, PACIFIC FISHERY MANAGEMENT COUNCIL

Madam Chairman, honorable members of the Committee, I appreciate the opportunity to testify today on behalf of the twenty-six tribes in the Pacific Fishery Council area.

I plan today to speak to five issues that bear on the reauthorization of the Magnuson-Stevens Act and add a comment.

TRIBAL SEAT

In 1996, the Magnuson-Stevens Fishery Conservation and Management Act (MFCMA) was re-authorized and amended. A tribal seat on the Pacific Fishery Management Council was added at that time. The tribes continue their support of the tribal seat. One small area of improvement would be for the tribal seat to be allowed designees. This addition would allow for tribal representative(s) from a specific tribal area the opportunity to participate in the deliberations of fisheries within their area of interest. Currently other government agencies represented on the PFMC have the ability to have designees for their seats. This is an effective and useful process because it allows the designation of individuals with specific expertise on a regional or stock specific issue and it allows for the Council representative to have a stand-in when workload demands the representative to be elsewhere. The tribes are again requesting consideration of amending the tribal seat on the Council that would allow this designee request to be implemented in the reauthorization process.

FISHERY MANAGEMENT PLANS

As a result of the amendments to the MFCMA in 1996, a major process of amending the various Fishery Management Plans has been underway. While these amendments have often been useful and have dealt with needed issues, they have been very time consuming and have been a drain on Council resources as well as the resources of the various government agencies that work within the Council family. Also, many serious conservation concerns are facing most of our fisheries and the regional Councils simply need more resources to deal with these additional issues. An ability to provide stipends for scientists participating in the groundfish management team, the salmon technical team, and the scientific and statistical committee

would help ensure that the agencies (who provide these scientists) can devote the time of their top staff to serve on these advisory positions.

BYCATCH

A critical issue facing the groundfish fisheries on the west coast is bycatch. The declining trip limits for many species has aggravated the problem of dealing with bycatch. Because there is no observer program on the west coast, the Council cannot measure the amount of bycatch in our fisheries adequately. This insufficiency has greatly complicated the Council's efforts to successfully deal with the problem. Any changes to the Act to facilitate the development and funding of an observer program would be helpful.

INDIVIDUAL QUOTAS

Another important issue is that of Individual Quotas. Currently there is a moratorium on the development and implementation of IQ's. While the tribes recognize that this is primarily a non-Indian issue, they support the concept of IQ's. IQ's can bring a great deal of stability to fisheries, which would benefit both Indian and non-Indian fishers.

STOCK ASSESSMENTS

Many of the problems facing fishery management on the west coast, especially groundfish management, have more to do with inadequate funding for both NMFS and the PFMC rather than problems with the Magnuson Act itself. Several of the groundfish stocks are very depleted and we have problems assessing the status of these stocks as well as developing recovery plans. The NMFS Triennial trawl survey is an important part of our stock assessment process. However, it is not done often enough and Congress seems to be moving away from funding adequate levels of NMFS research. Currently the Council tries to do stock assessments for each key species on a three-year basis. However, this is not adequate given the number of important species we try to manage and the number of species that are yet to be assessed. Stock assessments are expensive but necessary if we are to adequately manage fisheries.

FINAL COMMENT

Within the reauthorization process, we request Congress renew the commitment to the core purposes and policy statement behind the Magnuson-Stevens Act. That is to ensure conservation and management of the national fisheries resources and to promote domestic fisheries under sound conservation and management principles. In the management of the salmon resource in the Pacific Northwest, the Pacific Council must meet the obligations as defined by the Pacific Salmon Treaty, Indian Treaty Fishing Rights, ESA, and other domestic management considerations. Also, just as the Magnuson-Stevens Act is required to be in compliance with other applicable laws, the application of these other applicable laws needs to comply with the Magnuson-Stevens Act. In the development and application of ESA obligations, there needs to be recognition of Magnuson-Stevens Act principles that these fishery resources are managed for utilization and under the goal for attainment of maximum sustainable yield.

This concludes my testimony, and again I appreciate your consideration of my remarks.

Senator SNOWE. Thank you. Thank you all for your testimony here this morning.

Let me begin with you, Ms. Dalton. I would like to explore this with the panel. The issue that has repeatedly come up in today's testimony, which I have heard from witnesses in other field hearings and will hear from other witnesses testifying here today, is the issue of the quality of the stock assessments and the lack of scientific data.

So what is the problem, and how are we going to rectify it? I hear from my fishermen at home in the State of Maine, and it was one of the major issues that came before the Subcommittee during the course of the field hearings. I also just read an article that appeared in the National Fishermen, in the February issue, that

talked about the lack of data and the lack of support by the agency and Congress for quality stock assessments. This lack of support is making the job much harder.

We are here this morning to discuss the groundfish industry. We are not sure exactly what the causes are that have been attributed to the decline in the groundfish industry here off the west coast. We heard similar testimony yesterday in Alaska, with the opilio crab. These two problems are obviously connected in some way. But what are we going to do? What is it going to take to rectify this problem?

I know it is Congress' responsibility, but I think it is your agency's and all of our responsibilities. What will be the major issues that will help turn this around? Is it all money? Will it be more management tools?

Obviously the financial support of Congress and the agency is an issue. I think it is going to require a cooperative commitment on all of our parts, to ensure that we get the kind of data that will rebuild confidence in the ultimate decisions that are made.

So I would like to have you address that here this morning. This article that appeared in the National Fishermen talked about one researcher at the Massachusetts Institute of Technology Sea Grant Program, who was very frustrated because he was trying to get permission from NMFS to test a low-impact scallop dredge, and he was unable to do it. The bureaucratic paperwork and process led to inevitable delays, until the point where he finally gave up.

This researcher said that the process totally discouraged research by scientists, let alone by fishermen. He also said that they are essentially blocking the intent of the original Magnuson-Stevens Act for approval of an experimental fishery. He said that the permitting process was so ridiculous that it made research extremely difficult and frustrating.

There are a lot of issues at stake here. I think we really have to be committed to resolving these issues in this reauthorization process. So will you tell me what it is going to take?

Ms. DALTON. Obviously one huge factor is resources. I think there are some events that have led us to where we are now—the historic precedent, where we have put our efforts on the nature of the fisheries themselves, and distribution of resources. In Alaska, and I would also suggest in New England, we actually have the best traditional investment in our stock assessment resources, in part because that is traditionally where our biggest fisheries have been. So we know that we need the assessments and, over the years, we have built up a better stock assessment program.

A problem that we have on the west coast, and you also heard about it in the Southeast, is we have fisheries where we have a huge number of stocks. We have 80-some species that are involved in the groundfish fishery. In the Southeast, we have a few hundred species that are actually involved in their groundfish fishery. It is difficult to complete stock assessments for each. And the harvest for each of the different stocks is not necessarily very large.

What we have done on the west coast is focus most of our attention on assessing whiting, which is the big biomass fishery, and we have not been able to put the resources into assessing a lot of the different rockfish species that are really where we are having trou-

ble now. We have our acquisition plan. We also have our fisheries information system, which intended to get fishery-dependent data.

One of the things that we are very excited about, that we think will improve our stock assessments markedly, are the new research vessels. Thanks to Senator Stevens' help, we got the money last year for the first one of those four vessels. One of the problems on the west coast is we have not had a fishery vessel here. There just has never been the funding it.

Senator SNOWE. How many vessels do you have for that purpose?

Ms. DALTON. I am not sure. I believe about six right now, across the country. But a lot of them are old. Most of them are over 35 years old. And the new vessels are also acoustically quiet, so we get much better information from them. One of the issues, as you raised with MIT, is not really stock assessments—it is gear. MIT is trying to figure out new techniques to improve gear efficiency, reduce bycatch, and deal with the habitat issues. That has been a separate effort.

A lot of that is the work that you and other members have been doing to develop cooperative research programs. We have some cooperative research that is being done on the west coast. But one of the things that we would like to do is invest in more.

Senator SNOWE. Well, if we were to do one, two, or three, what should it be?

Ms. DALTON. The easiest thing to do is to invest more money in it. The problem is you are never going to have enough money to assess all these resources, and so you have got to put the dollars where you get the best return.

Senator SNOWE. Such as the observer program?

Ms. DALTON. The observer program would be a huge help on getting fishery-dependent data and also getting information on bycatch. And that was one reason why it was in our request last year.

Senator SNOWE. Mr. Lone, can you address that? I would like to have the rest of the panel also address this issue, because obviously you have all raised it in your testimony.

Mr. LONE. Thank you, Senator Snowe, I can address two or three items. Number one, I am a strong supporter of our need for an observer program to identify what our bycatch is. We are severely constrained as we establish annual allocations for the various species, since we do not have an observer program.

Speaking about the fishermen involved in the assessment process, we have looked into this issue on the west coast on a limited basis. As you have pointed out, there are bureaucratic challenges to implementing such an approach.

Please note the letters that I appended regarding funding needs. In December 1998, with the help of the NMFS Northwest and Southwest Regions and Science Centers, the Council prepared a plan describing the need for additional funding. Unfortunately, we have been unable to secure funding to date. While this plan was for the year 2001, it can serve somewhat as a master plan for what is needed in future years.

Senator SNOWE. Mr. Anderson.

Mr. PHIL ANDERSON. Thank you, Senator Snowe.

First of all, let us recognize that the groundfish fishery has been ignored up until very recently. It has been passively managed. We

did not have a groundfish plan until 1982. We had our first stock assessment along the lines of about 1988. We cannot passively manage this resource and be successful.

Priorities, it is a matter of priorities. Take a look at the expenditures in an agency like mine or an agency in the Northwest region of the National Marine Fisheries Service on the amount of dollars being spent on salmon versus groundfish. I do not know the precise numbers in the National Marine Fisheries Service, but I do know the numbers in our budget. And groundfish takes a back seat in a big way in a long limousine.

So what are the solutions? Partnerships between the National Marine Fisheries Service and the States on collecting data. Just the basic data of looking at the catches that are landed, looking at age structures, getting otoliths read, finding age readers—just those very basic things that we need to do to get some more information about some of these stocks does not cost a lot of money relative to building a new survey vessel, but just getting qualified people, making an investment and getting the basic data and information coming out of the landed catch would be a big help, in my judgment.

Where is the funding going to come from? I hate to come before Members of Congress or the legislature and continually say the answer is just give us more money. That does not usually sell real well. But I think the Conservation and Reinvestment Act, CARA, there are substantial dollars in Title I that could be used by the States, in partnership with National Marine Fisheries Service, to get us the kind of data that we need to successfully manage these fisheries.

And those are the kinds of partnerships that I am talking about. A lot of the stock assessment authors and some of the expertise are in the State agencies, as well as National Marine Fisheries Service. Certainly the observer program. It is not, in my judgment, a big ticket item, but it is a very—we have to know what our total mortalities are.

That is another linchpin to managing any of these species, knowing what our total fishery-related mortalities are. And we do not know that right now. It is not going to cost a lot of money to get that information, but the piggy bank is dry right now. Whether it costs a dollar or a million dollars, the piggy bank is empty. And we do not have the necessary funds to get that information.

So some basic data collection, through partnerships, and an observer program, along with the additional surveys, trawl surveys, on an increased interval, not the every 3-year interval we are on right now. Those three things, in my mind, could greatly improve our management of west coast fisheries.

Senator SNOWE. Do you think good data would have predicted the decline in the groundfish industry?

Mr. PHIL ANDERSON. I think timely data would have given us a much earlier indication of what was going on and we could have reacted to it before the collapse occurred, to the extent that it has.

Senator SNOWE. Mr. Harp, would you care to comment on this issue? I agree with you on the tribal designee, and we will explore that. It is a good suggestion.

Mr. HARP. Thank you for that comment, Madam Chair.

I would just like to echo what Mr. Anderson has said. As I said in my testimony, I think we need to get more frequent and better stock assessments, which requires additional money. I think we need to have an observer program implemented on the west coast here to get a better estimate of the amount of fish that are actually caught. That would address the bycatch part that I mentioned in my testimony.

I think there also needs to be an emphasis for more cooperation and coordination amongst the tribal, State and Federal agencies with the data that they do have on hand. Although it is limited, we can then expand from there.

One of the things about a situation in that resource is that when you get to a declining level, I think it does promote much more cooperation than when you do have a lot of abundant species. That has been my observation over 25 years in natural resources. When you have less to deal with, it fosters much more cooperation than when you have plenty of fish.

Thank you.

Senator SNOWE. Thank you.

Senator Gorton.

Senator GORTON. Mr. Anderson, was the Council properly consulted and asked for input on the part of the National Marine Fisheries Service in preparing its 4H paper with respect to the impact of commercial harvest on listed salmon stocks?

Mr. PHIL ANDERSON. Senator Gorton, to my knowledge, the draft 4H papers were prepared without input from the Council.

Senator GORTON. If you had provided input, would it have been different with respect to the impact on harvest than you have read in the 4H paper?

Mr. PHIL ANDERSON. We are, as the Washington Department of Fish and Wildlife, along with other entities, being provided an opportunity to provide comments to National Marine Fisheries Service on that draft. And we are in the process of formulating our comments. And I do not have specific knowledge of the precise language, but I know the thrust of the 4H paper and how it represents harvest versus hydro.

Out of the 12 listed species in the Columbia River, seven of them essentially do not have any harvest. And so eliminating harvest on those seven species that does not exist is not going to rebuild those stocks. There is harvest impact on particularly the Fall Snake River run. In our judgment, balancing the impacts of the actions necessary to recover those fish between hydro and harvest, that that is the appropriate way to proceed, and not to put it all on the backs of harvest.

Senator GORTON. Thank you.

Ms. Dalton and Mr. Stelle, is there in your regulations or in your minds a distinction between essential fish habitat under the Magnuson-Stevens Act and critical habitat with respect to listed fish under the Endangered Species Act? Is there critical habitat that is not essential fish habitat? Is there essential fish habitat that is not critical habitat?

Ms. DALTON. Will may have a different opinion on it. I would say the two of them probably would be very similar, because the definition of essential fish habitat is the waters and substrate that are

essential for the fish to grow and spawn and feed, and critical habitat is what is necessary for the continued existence of the species. So it would seem that the two should be fairly similar to each other, if you look at it on the face of the law.

I think the way that they are treated under the two different statutes are very different and the requirements that are associated, and our responsibilities, are very different in the two statutes. On the one, what we are talking about in the Magnuson-Stevens Act is a consultative process. Section 7 consultation requirements in the ESA are much tighter.

And I will let Will comment.

Mr. STELLE. Good question, Senator. Penny is right. On the matter of the substance of what is critical habitat for a species versus essential fish habitat, there are not huge differences. The huge difference is in what is the implication of a designation. Under the Endangered Species Act, the designation of critical habitat does invoke the powerful requirements of Section 7 of ESA, and they are much more stringent and powerful than the advisory consultation process under the Magnuson-Stevens Act. So it is the effect of the designation where the principal difference is, sir.

Senator GORTON. And if we were to take the waters of the State of Washington, are all of them both EFH and critical habitat?

Mr. STELLE. No. All of the waters of the State of Washington have not been designated either as critical habitat or as EFH. There are waters that are not critical habitat and there are waters which are not EFH.

Senator GORTON. Describe some that are not EFH.

Mr. STELLE. The freshwaters of the State of Washington that have not been currently or historically occupied by salmonids or those freshwater systems which have historically been occupied by salmonids but which are now blocked off from passage. So if it is not historically salmon waters, it is not EFH for salmon purposes.

Senator GORTON. You used the term "historic." If some human construction, a dam or anything else, has meant that say for the last 40 or 50 years there are no salmon but there were salmon 50 or 100 years ago, is it or is it not EFH?

Mr. STELLE. To the best of my knowledge, sir, no. And the classic case in point is Grand Coulee. The waters of the Columbia above Coulee are not EFH. That is permanent blockage of fish passage.

Senator GORTON. Okay, thank you.

Fish obviously live in water. How do you get to the point where you have EFH that is not water—uplands? And are you not on your maps designating substantial land areas as essential fish habitat?

Mr. STELLE. Again, Senator, to the best of my knowledge, no. My recollection of the anticipated designation of EFH is it is the aquatic system.

Senator GORTON. So a map that showed a whole county really is just a shorthand to say the waterways within that county and not the land area?

Mr. STELLE. Yes, sir. And my recollection of the general regulation is that it does identify activities in the upland riparian area as factors which may affect EFH. But the actual area which is designated as EFH is the water system itself.

Senator GORTON. Well, if the land is a factor that may affect EFH, what control does the designation or the Magnuson-Stevens Act give to the National Marine Fisheries Service over activities on that land?

Mr. STELLE. Under the terms of the Magnuson-Stevens Act, it provides us with the authority to make recommendations to the agency that may be engaged in that activity on how those activities may affect or adversely affect the essential fish habitat. Those recommendations, and also the recommendations of the Council on that matter, are advisory only to the agency doing the thing.

Senator GORTON. And so in that respect are dramatically different from critical habitat?

Mr. STELLE. Correct, sir.

Senator GORTON. Thank you.

Senator SNOWE. Thank you, Senator Gorton.

Senator Stevens.

Senator STEVENS. I think the chair said that she agreed with Mr. Harp. Do the rest of you have designated representatives, if you are absent, on the Council? I think it is a habit in the North Pacific Council that the seat can be filled by any person within the agency or the area that has the right to hold it. Apparently, from Mr. Harp's point of view, they have to have just one. And he is asking for some flexibility.

Do you agree with that, Mr. Anderson?

Mr. PHIL ANDERSON. The State agencies and Federal agencies can have designees. But on the Pacific Council, the eight members that are either in the at-large or obligatory seats cannot have designees.

Senator STEVENS. Why? Is that just because the Congress put it that way or is that the way you all want it?

Mr. PHIL ANDERSON. No, that is because that is the way Congress established it in the Act.

Ms. DALTON. For the State and Federal, it is the representative or their designee. But the at-large members are included because of their unique qualifications. They are not included on the basis of their representation of the State or Federal Government.

Senator STEVENS. I can understand that if it is a particular individual who has significant qualifications. But in an area such as a representative of the tribes, I do not see why they should not be able to designate their person.

I do not have any questions. I appreciate very much your clarifications on the problems of the Pacific Council area.

Senator SNOWE. Can I just ask one other question on IFQ's? I gather you agree about lifting the moratorium on IFQ's. Would you recommend that Congress establish certain conditions under which IFQ's could exist?

Mr. PHIL ANDERSON. I believe that the National Academy of Sciences, that did the review for Congress, recommended that certain criteria be established by Congress in the Act relative to IFQ's. I would support that.

Senator SNOWE. Mr. Lone and Mr. Harp, do you have any thoughts on this matter?

Mr. LONE. I agree with Mr. Anderson.

Mr. HARP. I agree with Mr. Anderson and Mr. Lone.

Senator SNOWE. Mr. Stelle, in response to Senator Gorton's question about what areas are designated as EFH, how much of the EEZ is designated as essential fish habitat off the coast here?

Ms. DALTON. The Pacific Council has not completed an EFH amendment for Pacific salmon yet. So, prior to that, the Council has worked on it, but nothing has been submitted to us yet.

Probably, we have most of the EEZ covered because of the large number of species and the diversity of areas that you find them in.

Senator SNOWE. So that is almost the entire area?

Mr. STELLE. Madam Chair, for groundfish, the EEZ has been designated as EFH. And Ms. Dalton is right, for salmon, the process has not—we are still in the middle of the process of working on that designation.

Senator SNOWE. So it is the entire EEZ, out to 200 miles. We will have to re-visit this issue. How to define and interpret the essential fish habitat provisions continue to surface at these hearings.

Are there any other questions from the Committee?

[No response.]

Thank you all very much. We appreciate your testimony here.

And now for the second panel. Our first witness will be Mr. Bob Alverson, Manager of the Fishing Vessel Owners Association; Mr. Ralph Brown, a member of the Pacific Council; Mr. Rod Moore, Executive Director of the west coast Seafood Processors Association; and Mr. Tim Henkel, who represents the Deep Sea Fishermen's Union of the Pacific.

We will begin with Mr. Alverson. Thank you.

STATEMENT OF ROBERT ALVERSON, MANAGER, FISHING VESSEL OWNERS ASSOCIATION

Mr. ALVERSON. Thank you, Madam Chair. My name is Bob Alverson, and I am representing the Fishing Vessel Owners Association, here in Seattle. I would like to thank you for the opportunity to provide this statement.

The Association is a trade association, representing the owners of 84 hook and line vessels that operate in longline fisheries from California to Alaska. Our species of concern include halibut, sablefish, Pacific cod in the Bering Sea and Alaska, and sablefish and rockfish species off the coast of Washington, Oregon and California.

My oral comments will be tailored to the lower Pacific coast. Our written comments significantly outline the benefits of the halibut/sablefish IFQ program. Based on the favorable experience in that program in Alaska, the Association believes that individual transferable quotas should be available for application to any fishery in the United States exclusive economic zone. The Association urges Congress to allow the statutory moratorium on individual quotas to expire in accordance with its terms.

This position is strongly supported by such organizations as the Alaska Crab Coalition, Deep Sea Fishermen's Union, numerous trawl organizations up and down the coast, and all of the regional fishery management Council chairmen. And, equally notable, the National Academy of Sciences has recommended it, based on your request to have them analyze the situation.

Relative to the lower coast, the Association is seriously alarmed and adversely affected by the conditions prevailing in the west

coast groundfish fisheries under the jurisdiction of the Pacific Council. Here is a case crying out for some form of IFQ. Excess harvesting capacity and extremely depressed resource conditions combine to defeat conventional management. Indeed, it is conventional management, necessitated by the IFQ moratorium and a flawed system of scientific data acquisition and analyses, that have caused these conditions.

Specific to our fixed-gear fleet, the fixed-gear sablefish fishery off the coast of Washington, Oregon and California is managed with three tiers, each tier having a different trip limit based on the historical production of the participating vessels. In 1999, each vessel that had a sablefish permit was allowed a nine-day season, beginning August 15th, regardless of the poundage of the applicable tier.

The Pacific Council attempted to allow a longer period of time for harvest in order to provide safety, management certainty and to better fit the sablefish harvest with other fishery activities. However, NOAA general counsel's office maintained that to allow too much time to catch a trip limit would be construed as an IFQ. Therefore, it would violate the moratorium on the Magnuson-Stevens Act.

On that basis of that ruling, the Pacific Council is currently forced to adjust a harvest time and trip limit sizes for the fleet, such that the fleet only has the probability of not catching their trip limit of 26 percent. This last season, on August 15th, most of my fishermen in our organization have what they call a tier 2 permit, which is equivalent to about 30,000 to 40,000 ground pounds of sablefish, 22,000 pounds dressed weight, and they were given a nine-day season to go out and catch that.

The caveat with that is based on a mathematical progression, that 26 percent probability, that the average guy will not catch his trip limit. Which is quite an incentive to try to go out and force the issue and try to catch your 26 percent—beat the system. But if you beat the system, the system tells you, we will shave another day off next year so that we can maintain this overhead. The 26 percent probability of not allowing us to catch our historical fish is called overhead, and that satisfies NOAA general counsel in not calling this an IFQ.

Madam Chairman, we request for the Pacific Council, if at all possible, that the Senate let us know if they are going to go ahead and allow this moratorium to expire or not by April. By giving us some indication in April, it would save the Pacific Council two full seasons in trying to prepare what is going on in terms of how it is affecting the industry.

IFQ's take a lot of time to design and implement. It took nine years for us to design and implement the one in the North Pacific Council. We had six years of design work going on in the sablefish fishery in the Pacific Council, that Jim Lone spoke to earlier, when the moratorium came into effect. It takes a lot of time, a lot of designing. And saving two full seasons would greatly help the Pacific Council.

Thank you.

[The prepared statement of Mr. Alverson follows:]

PREPARED STATEMENT OF ROBERT ALVERSON, MANAGER, FISHING VESSEL OWNERS ASSOCIATION

Madam Chair:

On behalf of the Fishing Vessel Owners Association ("FVOA"), I would like to thank you for the opportunity to provide this statement. The FVOA is a trade association representing the owners of 84 hook-and-line fishing vessels that operate in fisheries from California to Alaska, and in the mid-Pacific Ocean. Our fisheries include halibut, sablefish, and Pacific cod in the Bering Sea and Gulf of Alaska, and sablefish off the coasts of Washington, Oregon, and California, as well as albacore within and beyond the United States Exclusive Economic Zone in the Pacific Ocean. Although I am, at present, a member of the Pacific Fishery Management Council, and I am a former member of the North Pacific Fishery Management Council, I provide this statement solely in my capacity as Manager of the FVOA. I note that the Deep Sea Fishermen's Union, which represents the crewmen on vessels owned by FVOA members, has endorsed this statement.

SUMMARY

The FVOA and DSFU believe that the 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801, et seq.) have provided, in several respects, the basis for improved management of our nation's fisheries. The Act's National Standards on safety (National Standard 10, 16 U.S.C. 1851(a)(10)) and bycatch (National Standard 9, 16 U.S.C. 1851(a)(9)), enacted in the Sustainable Fisheries Act of 1996, are notable for the focus that they have provided on critically important aspects of fisheries management. The FVOA and DSFU were joined by the Alaska Crab Coalition ("ACC") in first proposing the enactment of these new National Standards, and in securing wide support among Washington State and Alaskan fishing industry organizations. The FVOA, DSFU, and ACC also contributed to the development of conservation-related amendments to the then Magnuson Act in 1990.

The habitat provisions of the Sustainable Fisheries Act have contributed to the progressive management of our fisheries. In particular, these provisions have helped to draw attention to the need for actions to reduce the impacts of trawling on the benthic environment, which serves as nursery grounds for valuable species of fish. The FVOA, DSFU, and ACC took the initiative among fishing industry groups to propose habitat-related amendments during the process leading to the Sustainable Fisheries Act.

Most importantly for the FVOA and DSFU, the Sustainable Fisheries Act preserved the Individual Fishing Quota ("IFQ") program that had been established for the halibut and sablefish fisheries off the coast of Alaska. This program, after ten long years of preparation by the North Pacific Fishery Management Council and the Department of Commerce, ended the deadly and damaging open access halibut and sablefish fishing derbies. IFQs have been the great success that their proponents had predicted from the outset of the development of the program.

However, one provision of the Sustainable Fisheries Act—the moratorium on IFQs—cannot be viewed as contributing in a positive way to fisheries management [16 U.S.C. 1853(d)(1)]. On the contrary, this congressionally-imposed constraint on fisheries managers serves as a roadblock to effective management, especially, but not exclusively, in fisheries plagued by excess fishing capacity and/or low resource abundance.

Based on the very favorable experience in the halibut and sablefish fisheries, the FVOA and DSFU believe that individual transferable quotas should be available for application to any fishery in the United States Exclusive Economic Zone. **The FVOA and DSFU urge Congress to allow the statutory moratorium on individual quotas to expire in accordance with its terms.** This position is strongly supported by the ACC, as well as by all the regional fishery management Council chairmen. Equally notable is the fact that the report to Congress by the National Research Council of the National Academy of Sciences, as directed by the Congress in the 1996 amendments (section 108(f), P.L. 104–297) definitively describes the benefits of individual fishing quotas. The development and design of IFQ programs by the regional fishery management Councils should be permitted as recommended by the NRC. [Executive Summary, Prepublication Copy, December 18, 1998.]

The FVOA and DSFU are seriously alarmed, and adversely affected, by the conditions prevailing in west coast groundfish fisheries under the jurisdiction of the Pacific Fishery Management Council. Here is a case crying out for some form of IFQs. Excess harvesting capacity and extremely depressed resource conditions combine to defeat conventional management. Indeed, it is conventional management neces-

sitated by the IFQ moratorium, and a flawed system of scientific data acquisition and analysis, that have caused these conditions. An attempt at creative management by the Pacific Council only resulted in a legal determination that the proposed measures violated the IFQ moratorium. As described in detail, below, this led to perverse results. **If Congress decides to extend the IFQ moratorium, an exception should be made for west coast groundfish fisheries. At a minimum, Congress should ensure that the Pacific Council will no longer be constrained by interpretations of the IFQ moratorium that prevent the establishment of vitally needed, remedial management measures.**

The FVOA and DSFU also ask Congress to extend to the Pacific Region the fisheries research plan provisions of the Magnuson-Stevens Act. [16 U.S.C. 1862.] As discussed further, below, there is an urgent need for a comprehensive observer program in the depressed groundfish fisheries off the Pacific Coast. There is simply no other way to obtain reliable data on bycatch of depressed, and even threatened, species. It is true that the industry would be hard-pressed to find the funds to pay for an observer program. But it is also the case that Congress has been unwilling, to date, to provide federal funds. An effective observer program is indispensable to recovery of the fish stocks and the fishing industry. Authorization for the imposition of observer fees on industry should be provided, so that in the continued absence of federal funding, the vitally needed observer program can be established. The fishing industry stands to benefit from improved conservation of our public resources. Consequently, the industry should be prepared to pay for the needed observer program, if federal funding is inadequate or unavailable. Playing Russian Roulette with our fisheries has proved disastrous to important groundfish species and to the industry that has depended on them. We must have observer data in order to manage our fisheries with confidence that we are doing the right things. I note that, in the event that an IFQ program is established for these fisheries, industry capability and willingness to fund an observer program would, no doubt, be considerably enhanced.

Conservation

As discussed in detail, below, replacement of the open access race for fish by the halibut/sablefish IFQ program has resulted in improved conservation and management. The incidental catch of halibut in the directed sablefish fishery has declined 38%. The incidental catch of groundfish in the sablefish fishery has dropped by 39%. Halibut mortality due to lost fishing gear has decreased by 59.65% (translating to an average $3.5 million dollar saving, annually).

Incidentally caught sablefish is no longer discarded in the directed halibut fishery. Sablefish in the western and central Gulf of Alaska is now fully harvested, not only avoiding waste, but also generating an economic gain for the industry (an average $3.93 million gain, annually).

These improvements accord with the principal purpose of the Magnuson-Stevens Act, which is conservation, and with a major, related objective of that statute, minimizing bycatch and related mortality. [16 U.S.C. 1851(a)(1), (9).]

In the absence of IFQs, the west coast groundfish fisheries have continued to be plagued by excessive waste. This has contributed to the further decline of once-abundant resources.

Safety

As noted above, the Magnuson-Stevens Act requires that fisheries management promote the safety of human life at sea. [16 U.S.C. 1851(a)(10).] Replacement of the open access race for fish by the IFQ Program has greatly improved the safety of life in the halibut and sablefish fisheries off the Alaskan coast. The former halibut fishing derby was the second most dangerous occupation in the United States (preceded only by the Bering Sea crab fisheries).

Weather conditions off the coasts of Washington, Oregon, and California are by no means as severe as the conditions off the coast of Alaska, where the halibut/sablefish program functions. Nevertheless, there are injuries and vessel and gear losses attributable to the race for fish in bad weather in the Pacific Council region. IFQs would undoubtedly provide relief, insofar as the pace of the fisheries would be slowed and fishermen would be able to choose the conditions in which they would carry out their operations.

Communities

The Magnuson-Stevens Act requires that fisheries management take into account the interests of fishing communities. [16 U.S.C. 1851(a)(8).] Community development quotas ("CDQs"), which are integral to the halibut/sablefish IFQ program, have assured isolated, low-income, Alaskan native coastal communities a major source of employment and revenue. At the same time, economic and social disrup-

tion of other communities has been avoided; the top five halibut ports and the top four sablefish ports remain the same as under the open access system. Small vessels serving minor ports have been guaranteed their place in the fisheries, and an industry fee-based loan program has been established for the owners of those vessels and for new entrants to the fisheries. In short, this IFQ program has increased the overall value of the fisheries, making it possible to dedicate a portion to the poorest communities, without adversely affecting the others.

The FVOA and DSFU would by no means suggest that CDQs or an industry-funded loan program be established in the Pacific region. Conditions there are quite different from those in Alaska, where communities are both small and isolated and have fewer sources of income. However, it is a fact that some communities in the Pacific region will suffer greatly from the depressed conditions in the groundfish fisheries and that an IFQ system, by improving those conditions, would contribute to the recovery of the affected, local economies.

Overcapitalization

The Magnuson-Stevens Act provides for consideration of economic efficiency, and for reduction of excess fishing capacity. [16 U.S.C. 1851(a)(5), 1861a (a)–(e).] Excess capacity in fisheries has been identified as one of the fundamental causes of resource declines, unsafe conditions, lost economic efficiency, and lower quality product. The halibut/sablefish IFQ program has resulted in a reduction of the halibut fleet from 3,450 (1994) to 1,601 (1998). [Restricted Access Management ("RAM") Report, NMFS, 1999, page 27.] Conservation risk associated with fishing pressure on the resources has declined radically. Unsafe conditions due to 24-hour halibut derbies and 2-week sablefish seasons have disappeared, as fishermen have gained the opportunity to conduct their operations in periods of good weather during eight months of the year. Longer seasons have led to full-time employment on vessels and in processing plants, and higher fish values have resulted in better lives for vessel owners and crews. Slower paced fisheries have allowed much improved handling of the catches, and thus, better quality product for the consumer. It is reliably estimated that a government-funded buyback achieving what was accomplished by the halibut/sablefish IFQ program would have cost the taxpayers approximately $318.8 million.

There is considerable doubt that an industry-funded buyback can work in the west coast groundfish fisheries. The financial condition of the fleet and the depressed condition of the resources suggest strongly that the economic basis for such a buyback simply does not exist for those fisheries. By the same token, there is no indication that Congress is willing to provide federal funds to pay for a fleet reduction program. These factors, too, argue for IFQs.

Greatest Overall Benefit to the Nation—Conservation, Safety, Efficiency, Quality, Value

The Magnuson-Stevens Act requires that fisheries management achieve the greatest overall benefit to the Nation. [16 U.S.C. 1851(a)(1); see 16 U.S.C. 1802 (28)(A).] In addition to achieving improved conservation, safety, and efficiency, the halibut/sablefish IFQ program has resulted in improved product quality and higher product value. The slower paced fisheries have translated to greater availability of higher quality product, in particular, fresh halibut for eight months, instead of a few days of the year, and greater bargaining power for U.S. producers in the sablefish export market. Landings of halibut provide a continuous supply of product for eight months, averaging about 12% of the harvest per month. The same is true for sablefish. [RAM Report, NMFS, 1999, page 12.] Similar benefits could be anticipated for the groundfish fisheries of the Pacific region.

REVIEW OF THE HALIBUT/SABLEFISH INDIVIDUAL FISHING QUOTA AND COMMUNITY DEVELOPMENT QUOTA PROGRAMS

When the North Pacific Fishery Management Council recommended approval by the Secretary of Commerce of IFQs and CDQs for the halibut and sablefish fisheries, it was on the basis of an administrative process involving extensive debate and intensive analysis. The Council had considered an array of possible management responses to conservation, social, and economic factors at work in the then open access fisheries. These factors were identified, as follows:

- Allocation conflicts;
- Gear conflicts;
- Fishing mortality and other costs due to lost gear;
- Bycatch loss of halibut and sablefish in other fisheries;

- Discard mortality for halibut and other retainable species in the halibut and sablefish fisheries;
- Excess harvesting capacity;
- Product quality, as reflected in halibut and sablefish prices;
- Safety of fishermen;
- Economic stability in the fixed gear halibut and sablefish fisheries and affected communities; and
- Rural coastal community development of a small boat fishery.

The Council ultimately determined that the IFQ system would be the best management response to these factors. The Council also decided that CDQs would provide a useful economic boost to Alaskan coastal communities.

Allocation Conflicts

Allocation conflicts between the operators in the halibut/sablefish fisheries generally were found in skirmishes involving halibut. Prior to implementation of the IFQ program, the allocation issues centered around manipulations of when specific area openings would take place in order to advantage or disadvantage various groups.

In the Bering Sea/Aleutian Islands area, there evolved a series of complex clearing procedures designed to make it more inefficient for non-Alaskan-resident-operated vessels. This included such regulations, in the Pribilof Islands area, as constraining trip limits and a requirement that non-resident vessels deliver to Dutch Harbor. This, of course, gave the local fishermen additional fishing time. Similar clearing requirements were established for the Eastern Bering Sea, Area 4E, and the area known as Area 4B in the Aleutian Islands.

The annual meetings of the International Pacific Halibut Commission ("IPHC"), were prolonged for hours on the question of precisely when to have the spring and fall 24-hour halibut openings. Some of the issues that drove this debate were as follows: Were the Canadian or the United States fishermen going to open first to get an advantage on price; would the spring opening conflict with the spring herring fishery in southeast Alaska; would the openings conflict with western peninsula salmon seasons; would openings occur during big tides; would openings put product at the docks in Alaska at the right time for the Sea Land ships; would the fall opening conflict with the State of Alaska sablefish openings; and would the opening conflict with the Russian Orthodox holidays?

None of those issues, which were debated with emotion and zeal, have arisen since the implementation of the IFQ program. When the IFQ program was adopted, the onerous clearing requirements and trip limit regimes in the Bering Sea district were removed (though there are still clearing requirements they are not of an allocative nature). Former Governor of Alaska, Walter J. Hickel, correctly observed of the IFQ program, "Ultimately the free market decides." [Letter from Walter J. Hickel to Bob Alverson, August 27, 1997.] All of the concerns of when to fish or not to fish that the industry and fisheries managers debated at length prior to implementation of the IFQ program are now the business decisions of each and every vessel owner, subject to overarching conservation and management regulations.

Gear Conflicts

The supplemental environmental impact statement ("SEIS") for the halibut/sablefish IFQ program stated:

> Although an IFQ program will tend to decrease gear conflicts within the halibut and sablefish fishery, it may increase gear conflicts between halibut or sablefish fishermen and other fishermen by increasing the areas and length of periods in which such conflicts can occur. For example, it is less costly for trawlers to avoid the halibut grounds during brief halibut openings than to avoid these areas most of the year. Similarly, the areas and times with a high risk of gear conflicts are easier to identify and avoid with the current intensive halibut fishing periods than with an IFQ program. No attempt has been made to estimate the magnitude of this effect. [SEIS, page 2–7.]

Halibut fishermen no longer have gear conflicts with sablefish fishermen. The best sablefish grounds are usually located on the outer continental shelf, or at about 350 to 600 fathoms. The halibut fishery is conducted generally between 100 and 250 fathoms. The IFQ fishery allows the participants to target where the fish are located. The time available for the fishermen to decide where and when to set gear allows avoidance of other fishing operations, particularly now that the grounds for halibut and sablefish are no longer saturated with gear.

The statement, "it is less costly for trawlers to avoid the halibut grounds during the brief halibut openings, than to avoid these areas most of the year", is ironic,

because the reverse has turned out to be the case. It is very costly for trawlers to avoid halibut grounds, because the trawl groundfish seasons have become very short. This is particularly true in the Gulf of Alaska. Should trawlers inadvertently get into a school of halibut or area where halibut gear is set, the trawl fishermen do not have the time to make optimum adjustments. If the trawlers had the time to make those adjustments, the bycatch and potential gear conflicts could be further reduced. As it stands, now, the longline IFQ fishermen have adequate time to harvest their quota shares and can avoid most of the intense trawl activity. In fact, the Pacific cod fishery in the Gulf of Alaska has been shortened, so that it ends about the time the March 15th IFQ fisheries start, with the result that few, if any, gear conflicts have been occurring with that directed fishery.

The openings set forth below were provided the trawl fleet in the Gulf of Alaska during 1995 and 1999. One can easily see that fishing time is now at a premium to the trawl fleet, as it was to the halibut and sablefish fishermen prior to the IFQ program. The loss of fishing gear, particularly someone else's, becomes a low priority, when fishing time becomes a high priority.

1995		
Pacific Cod	Western Gulf	January 20 to March 17
(inshore)	Central Gulf	January 20 to March 22
Pollock	Western Gulf	January 20 to February 2
		June 1 to June 2
		July 1 to July 2
		October 1 to October 1 (12 hours)
	Central Gulf	January 20 to January 24
		June 1 to June 5
		July 1 to July 5
		October 1 to October 4
S.E. Alaska Pacific		July 1 to July 9
Ocean Perch		Plus two days in October

1999	Sector	Area in the Gulf of Alaska
Pacific Cod (Trawl) Inshore	610	Opened 1/20/99 closed 3/8/99
Inshore	620 & 630	Opened 1/20/99 closed 3/14/99
Offshore	610	Opened 4/18/99 closed 6/7/99
Pollock (Trawl) Inshore	630	Opened 1/20/99 closed 1/27/99
Inshore	610	Opened 1/20/99 closed 1/31/99
Inshore	620	Opened 1/20/99 closed 2/17/99
Inshore	640 & 650	Opened 1/20/99 closed 3/6/99
Inshore	610	Opened 6/1/99 closed 6/7/99
Inshore	630	Opened 6/1/99 closed 6/10/99
Inshore	620	Opened 6/1/99 closed 6/11/99

In summary, the SEIS predicted fewer gear conflicts, and this has proved correct. **The SEIS' prediction of IFQ harvesters experiencing, among themselves, gear conflicts, has not proved accurate.** This is largely because sablefish and halibut operations take place at different depth strata, and because of the eight months of fishing time, halibut harvesters can afford to communicate with their fellow fishermen and avoid each others' gear. The same applies for sablefish harvesters. The conclusion of the SEIS about trawlers has turned out to be just the reverse of actual experience. The trawl derbies have increased the trawlers' cost of avoiding gear conflicts.

The initial reports to the Pacific and North Pacific Councils on the operation of the whiting and pollock cooperatives indicate that the resulting reduction of capacity has favorably affected the fisheries by slowing the race for fish. Particularly helpful benefits should include reduction of bycatch and gear conflicts.

Fishing Mortality and Other Costs Due to Lost Gear

The SEIS correctly predicted the following with regard to gear loss and related fishing mortality:

> "There are several reasons why an IFQ program is expected to decrease gear losses and the associated costs. First, it would reduce the amount of gear that is on the grounds at any one time, and therefore, reduce the amount of gear that becomes tangled. Second, it would increase the willingness of fishermen to

take more time to avoid tangling gear and to retrieve lost or tangled gear. It would do so by decreasing the opportunity cost of the time required either to set gear so that it is less likely to become tangled or to retrieve it. Third, it would eliminate the current gear losses that occur because fishermen set more gear than they can retrieve before the end of the brief halibut openings. Finally, it would allow fishermen to fish at a pace and in areas, time periods, and weather conditions that decrease gear losses." [SEIS, page 2–6.]

The SEIS stated, "There are principally two types of costs associated with gear losses in the halibut and sablefish fishery. There are (1) cost of replacing lost gear, and (2) harvest forgone due to the fishing mortality caused by the lost gear." [Id.] The SEIS estimated that, in 1990, 1,860 skates of gear and two million pounds of halibut were lost. [Id.]

In its annual reports, under the category of waste, the IPHC includes the mortality of halibut due to lost gear in the IFQ fleet. In the 1994 Annual Report, waste was recorded at 2.85 million pounds. The 1995 and 1998 Annual Reports recorded waste as 1.0 and 1.9 million pounds, respectively. This represents a 48% average reduction in waste, or an annual savings of approximately 1.4 million pounds of halibut from 1994. This compares impressively with the 50% saving predicted by the SEIS. Based on the 1999 Seward, Alaska price for halibut (approximate average, $2.44/lb.), the savings due to reduced waste is approximately $3.36 million.

The lost fishing gear in the halibut derbies was primarily the result of 4,000 to 6,000 vessels setting their gear all at the same time, and the gear becoming entangled. Gear lost in this manner is a thing of the past. The SEIS estimated the value of lost gear at $2.0–$2.4 million per year in the halibut derbies. [SEIS, page 2–6.] Under the IFQ program, the vessels share the grounds over an 8-month season. Gear still can be lost due to the normal hang-up on the bottom, but there are no longer large amounts of gear lost due to gear conflicts.

There has also been a savings in the amount of gear purchases for each vessel each season. It was not uncommon for vessels to pre-bait and set 80 to 130 skates of gear during a 24-hour derby opening. Vessels are now fishing with 50 to 70 skates of gear. Additionally, the vessel operators, prior to IFQs, used two different types of gear—one for halibut and one for sablefish. Many harvesters are now using their sablefish gear to harvest the halibut quotas, further reducing gear-related costs to the fleet. The SEIS predicted a 50% reduction in gear needed to harvest the same amount of fish. [SEIS, page 2–7.]

The open access sablefish fishery had similar problems with lost gear; however, the SEIS did not quantify the loss. It is reasonable to conclude, based on the halibut experience, that the lengthened sablefish seasons under the IFQ program have also resulted in lower gear losses and associated resource mortality than prevailed in the open access fishery.

In summary, there has been at least a 48% reduction in waste of halibut recorded by the IPHC, with a net benefit of $3.36 million annually to the fleet. The IFQ program has resulted in much less gear being set to harvest the quota.

Bycatch Loss of Halibut and Sablefish in Other Fisheries

The Magnuson-Stevens Act provides, "Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch." [16 U.S.C. 1851(a)(9).]

Congressional interest and intent with respect to bycatch reduction was clearly reflected in the Senate and House Floor debates in the 104th Congress. Senator Stevens declared that, "Under S. 39 [Sustainable Fisheries Act], the Councils will be required to reduce the amount of bycatch in every fishery around our country." [Congressional Record, September 18, 1996 at S10810.] He also stated, "We thought Americanization would go a long way toward conserving the fishery resources of this Nation. Foreign vessels have now given way to U.S. vessels that are capitalized now far beyond what we ever envisioned in the seventies, and the fisheries waste continues to get worse in many areas." [Id.] Senator Murkowski stated, "This will put us on the road to stopping the shameful waste that is currently occurring in many fisheries." [Id. at S10820.] Senator Gorton remarked, "I join my colleagues in lauding those provisions that aim to reduce waste and bycatch in the fisheries". [Id. at S10814.]

On the House Floor, Congressman Young, principal author of H.R. 39 (companion bill to S. 39), and chairman of the committee of jurisdiction, stated, "The reduction of bycatch in our fisheries is one of the most crucial challenges facing fisheries managers today." [Congressional Record, September 18, 1995 at H9116.] On passage of S. 39, he stated, "The bill recognizes that bycatch is one of the most pressing problems facing the continuation of sustainable fisheries." [Congressional Record, September 27, 1996 at H11438.]

Prior to the implementation of the IFQ program for sablefish and halibut, the length of the seasons had shortened to a point of causing chaos. The sablefish fishery had collapsed from a 9-month season to a less than a 10-day fishery in the western Gulf of Alaska, and to a five-day season in southeast Alaska.

By 1994, the halibut fishery had become two 24-hour openings, one in the spring and one in the fall. In the mid-1970's, the halibut season had been nine months. By the 1990's, when fishermen harvested sablefish, they were required by regulation to throw away their incidentally caught halibut, and during the halibut derbies, the fishermen were required to throw away the incidentally caught sablefish. The mortality associated with this regulatory bycatch was deducted from the available commercial harvests.

The IPHC recorded the halibut mortality in the directed sablefish fishery by the use of the observer program. The average halibut mortality in the longline sablefish fishery for each of the five seasons preceding the IFQ program was 1,816,000 pounds. The bycatch mortality, after the IFQ program was implemented in 1995 was recorded at 297,000 pounds. This represented an 84 percent reduction in halibut mortality, or a reduction of 1,519,000 pounds annually. There have been no updates on this in the NMFS database since 1995, but there is no reason to expect that the experience has changed since then. The reduction resulted from a variety of several factors. Two of the more important ones were: (1) the fishery slowed down, and juvenile halibut were able to be released with better care, and thus with lower mortality; and (2) the adult halibut were allowed to be retained and counted against the quota. (Juvenile halibut are not allowed to be landed; they are defined as being less than 32 inches long.)

Similar information is not available to quantify what has taken place with incidentally caught sablefish. The directed halibut fishery is generally conducted in a shallower habitat than that in which the sablefish are usually found, so the numbers of sablefish saved in the halibut fishery would probably not be as great as the numbers of halibut saved in the directed sablefish fishery. (The deep-water sablefish habitat does, however, have substantial numbers of halibut in the late winter and spring.) The important point is that the fleet is now landing incidentally caught sablefish. That was not the case prior to the IFQ program.

The reduction in halibut mortality in the directed sablefish fishery of 1,519,000 pounds represents approximately a $3.2 million gain to the longline fishermen, assuming an average 1997 price of $2.10 per pound. As noted above, prior to the IFQ program, this now-retained bycatch was discarded and deducted from what might be available for commercial harvest.

There has been an additional saving to the longline fleet with the implementation of the IFQ program. Prior to 1995, the longline sablefish fishery operated in the Gulf of Alaska with a halibut cap of 700 metric tons. Once this bycatch mortality was accounted for, with the help of the observer program, the directed sablefish fishery was closed. This had the effect in the western Gulf of Alaska, and at times the central Gulf of Alaska, of stopping the harvest of sablefish, in order to protect halibut. The ability under the IFQ program to keep the sablefish fishery open in the Gulf of Alaska in each of the years, 1995, 1996, 1997, 1998, and 1999, has allowed for the western Gulf of Alaska harvest level to be fully achieved, and the central Gulf quota to also be harvested. For 1997, in the western Gulf of Alaska, the harvestable amount of sablefish quota shares amounted to 1,690,222 round pounds, representing an additional $3.93 million to the fleet. (Price $3.70/dressed, 63% recovery.)

In summary, the IFQ program has allowed the fleet to recapture the lost harvest of halibut that was occurring due to sablefish operations. This gain amounts to an average of $3.2 million annually since the inception of the IFQs. The program additionally allows for the full harvest of sablefish in the western and central Gulf of Alaska, providing an average annual gain of $3.93 million.

Janet Smoker of Fisheries Information Services ("FIS") completed a review of the IFQ directed sablefish fishery in the Gulf of Alaska relative to the retention of various species caught incidentally. The FIS report examines the 1994 season against the IFQ seasons of 1995, 1996, and part of 1997. The following conclusions were based on the North Pacific Fishery Management Council's observer program.

While conducting a directed fishery on sablefish, some of the target catch is discarded. The retained sablefish has always been high, according to the report. The retained sablefish in the directed longline fishery for sablefish during 1994 was 96.8% (a number that is hard to improve upon), and during the 1995, 1996, and 1997 seasons averaged 97.03%. One observation concerning the small difference in retained bycatch between the open access period and the IFQ fishery is that there has been very little "high grading" in the IFQ fisheries, indeed, less than in the pre-

IFQ fisheries. High grading had been a concern with respect to the IFQ program, when it was under development.

The SEIS noted several very important points relative to this subject. Vessel profit would increase 6%, if sablefish under 4 pounds (eastern dressed weight) were discarded, but in so doing the number of fishing days would increase 70%. [SEIS, page 2–14.] The fishermen would have made more money, but would have worked many more days. As noted above, the observer statistics compiled by FIS, which indicate a 97.03% retention of sablefish, suggests that the SEIS was accurate. High grading, which means catching the fish at least twice, is not economical.

The FIS report also indicates that the directed sablefish fishery during the 1994 season was retaining 75.5% of all groundfish, inclusive of sablefish that was being caught. The next three seasons under the IFQ program increased the total groundfish retention to 84.9% of all groundfish species. Discards of groundfish declined from 24.5% of the catch to an average of 15.03% of the catch, representing a 39% reduction in discarded groundfish.

The retention of groundfish, not including sablefish, increased from the 1994 season level of 25.7% to an average of 34.6% during the 1995, 1996, and 1997, seasons. This represented a 35% increase in groundfish retention, not including sablefish. The halibut discards that occur during the directed sablefish fishery have gone from 21.1% in 1994 to an average of 13.03% during the 1995, 1996, and 1997, seasons. This represented a 38% decline in halibut discards. Discards of halibut under the IFQ program in the directed sablefish fishery are largely halibut that are less than the legal size for retention.

The discards of rockfish and Pacific cod in the IFQ fisheries are significantly the result of the rockfish and cod quotas being achieved during the race for fish in those fisheries, which then result in regulatory discards for the remainder of the year for IFQ fisheries. The majority of groundfish discards in the IFQ fisheries are flounders and skates, for which markets have not yet been adequately developed.

In summary, according to the cited evidence and analysis through 1997, the retention of sablefish has remained in the 97% range suggesting very little, if any, high grading. The discards of groundfish in the directed sablefish fishery reduced 39%, for a 84.9% retention of everything caught. The fish currently discarded are primarily skates and flounders for which markets are not available. The halibut discards in the sablefish fishery declined 38%. The IFQ program has, therefore, helped reduce bycatch significantly. Data for 1998 and 1999 are not available.

Excess Harvesting Capacity

The SEIS made a number of comments with regard to excess harvesting capacity. "The fact that there are too many vessels has been identified as a problem." [SEIS, page 2–52.] "The Council has considered the introduction of a quota system as a means to enable vessels to leave the industry to receive some recompense through the sale of quota shares for so doing." [Id.] "It is hoped that following introduction, transfer of quotas will lead to less efficient vessels leaving the industry." [Id.]

In 1994, the number of vessels participating in the sablefish fishery opening numbered 1,139, and in the halibut fishery, 3,450. The number of vessels participating in the sablefish fishery in 1995, 1996, 1997, and 1998, were 517, 503, 504, and 449 respectively. The corresponding numbers of halibut vessels were 2,057, 1,962, 1,925, and 1,601. [RAM Report, NMFS, 1999, page 27.]

The reduction of vessels as envisioned by the SEIS is working and is being accomplished without any federal buy-back assistance. The fleet is using the equity value of quota shares to buy itself out. The FVOA estimates that, in order for the Federal Government to have achieved a fleet reduction in the halibut fishery from 3,450 vessels in 1994, to 1,601 in 1998, a reduction of 1,849 vessels, it would have cost at least $172,432 for each vessel and its potential harvest of fish. This means that the halibut fleet has self-rationalized itself in the amount of $318,822,000 ($172,432 × 1,849 vessels) in four years, without any federal assistance.

There are no mechanisms comparable to IFQs in terms of cost effectiveness in reduction of a fleet. The taxpayer cost of one New England buy-out was $23 million, and the impact was minimal.

One of the options the North Pacific Fishery Council seriously looked at, when it was considering whether to adopt IFQs for the halibut fishery, was a license limited entry program that would have reduced the halibut fleet from 5000 vessels to less than 1000 vessels. This option would have provided no compensation to the 4000 vessel operators eliminated from the fishery, and accounts, in large part, for the adoption of the IFQ alternative.

Product Quality, as Reflected in Halibut and Sablefish Prices

The SEIS made numerous predictions regarding the expected effects on product quality, the availability of fresh halibut, and ex-vessel prices. One of the primary goals of the IFQ program was to provide high quality fresh halibut on a continual basis. The 24-hour openings in the derby fisheries limited the ability of fishermen and processors to provide fresh halibut to brief periods of the year, and to very few customers. For example, the Hotel Captain Cook, in Anchorage, Alaska, had to import fresh halibut from Canada to supply its customers, even though Alaska produced more halibut than did any other place in the world.

". . . I mention the Crow's Nest Restaurant in the Hotel Captain Cook, which has a reputation of serving nothing but fresh halibut. Prior to IFQs, most of the year we flew fresh halibut in from Vancouver." [Letter from the Honorable Walter J. Hickel to Mr. Bob Alverson, August 27, 1997.]

The SEIS had the following specific expectations with regard to the IFQ program. First, the program would provide the flexibility in scheduling landings that is necessary for fishermen and processors to take advantage both of the latent year round market for fresh halibut and the seasonal consumption patterns for sablefish, and to decrease storage time and costs for the halibut and sablefish that are frozen. Second, the program would increase the quality of landed halibut and sablefish, by decreasing the opportunity cost of the time required to assure that the catch is quickly dressed and cared for. Third, the program would eliminate the brief, intensive openings that result in such large concentrations of landings that unloading and processing delays can decrease product quality and prices. [SEIS, page 2–4.]

Flexibility in scheduling landings to take advantage of a year-round market for fresh halibut and seasonal consumption patterns is evident from the IPHC monthly landing reports for the 1995 through 1998 seasons. [RAM Report, NMFS, 1999, page 12.] The fleet has spread its landings over the entire time provided, all eight months. This has allowed the fresh fish market to absorb approximately 75% of the harvest. The initial forecast by the SEIS was 50%. [SEIS, page 2–5.]

With regard to storage costs and savings, the SEIS stated, "If 75 percent of landings currently are frozen and if an IFQ program would result in only 50% being frozen, the cost savings in 1990 would have been $4.2 million ($0.32 per lb. × 25% of 52.6 million lbs.)." [SEIS, page 2–5.] With 75 percent of the harvest now going to the fresh markets, cold storage saving in terms of 1990 dollars is $9.8 million. ($0.32 per lb. × 50% of 61,200,000 lbs. (1999 quota).) This saving thus is over twice that forecasted by the SEIS. Additionally, in terms of product quality, the SEIS assumed, on average, that halibut was frozen 6 months a year. This is no longer the case, and the quality is, therefore, higher than anticipated.

The SEIS stated, "The price increase for sablefish is expected to be less than for halibut, because the potential benefits from the fresh fish market are probably less for sablefish". [SEIS, page 2–5.]

The SEIS greatly underestimated the Japanese frozen market for sablefish, and the marketing advantages that IFQs gave U.S. fishermen, in terms of negotiating leverage in this foreign market. (Harvest guidelines have decreased as well, which has put an upward pressure on prices.) Japan consumes over 97 percent of the U.S.- and Canadian-harvested sablefish. Since the establishment of the IFQ program, the sablefish price has steadily increased. The 1997 average price to fishermen would conservatively be estimated at $3.70 per dressed pound. The NMFS assumes a 63 percent recovery rate between dressed and round sablefish, therefore in terms of round weight, the price would be $2.33 per pound. The 1999 dressed weight price in Alaska averaged approximately $3.10 per pound, reflecting the recent recession in Japan.

The SEIS estimated that the round pound price for sablefish would increase $0.05. That document stated, "In 1991, this would have been a $0.05 per pound round weight increase in the ex-vessel price or about a $2.8 million dollar increase in ex-vessel value." [SEIS, page 2–5.]

The price for dressed sablefish in 1991, based on the SEIS, was $1.59 per dressed pound or $1.00 per round pound. The 1997 round price of $2.33 converts to a 1991 price of $1.98, using a consumer price index regression of .849. In terms of 1991 dollars, the IFQ program added $0.98 per round pound to the price of sablefish. In terms of the allocated 1997 quota shares, the added value to the resource is $29,629,207, in 1991 dollars. ($0.98 × 30,233,885 1997 round pounds.) The prediction of a $2.8 million gain, therefore, was very greatly underestimated. In terms of revenues to the State of Alaska, under the 3.3% raw fish tax, the gain has been $957,000 per year on the average, through 1997.

With respect to halibut the SEIS predicted the following: "In summary, it is estimated that an IFQ program would increase halibut ex-vessel prices by $0.04 to $0.68 per pound. Given the 1990 landings of 52.6 million pounds, the resulting in-

crease in the ex-vessel value of the fishery would have been from $2.1 million to $35.8 million." [SEIS, page 2–5.]

The SEIS used a 1990 value for halibut at $1.78 per pound. The prices for halibut since the IFQ program was initiated in 1995 have been in the $1.90 to $2.40 range in the Seward Alaska area. Prices in the Seattle area are generally 35 to 60 cents above Seward prices, largely reflecting transportation costs. Assuming an average price for 1997 of $2.25 per pound, and using a consumer price regression of .814, the 1990 value would have been $1.83 per pound. Hence the added ex-vessel value to the industry in terms of 1990 dollars is approximately 5 cents. This would mean an added ex-vessel value to the fishermen of $2.5 million. Consequently, although there has been, in fact, an increase in price paid to the fisherman, the amount has been at the lower end of the prediction.

It should be noted, however, that this value may be somewhat misleading, in that the halibut industry has completely changed since the implementation of the IFQ program. There are no more long lines of fishing vessels waiting to deliver halibut. Processors no longer have product stacked on their processing floors for days at a time because freezers are too full. Prior to the IFQ program, containers of frozen halibut were transshipped to the Seattle area for redistribution. Now, significant amounts of halibut are air freighted out of Anchorage, Alaska. There has been an added cost in air transportation to get good quality fresh fish to distant markets, which does not readily appear as an additional value when only looking at the price the fishermen receives. There are new businesses in air-freighting as well as long-haul trucking out of Anchorage that were not envisioned prior to the IFQ program.

The industry has been revolutionized, and the most important quality aspect for halibut of the new system is shelf life. The better the quality at the boat, the longer the fresh fish can be available to consumers. The need for good quality to ensure shelf life for halibut now is the driving force on prices paid to the harvesters. A letter from Dory Seafoods states:

> The majority of the high quality buyers want to know when was the fish caught and how old will the oldest fish be when it is received in the market place. Many buyers will not buy old fish, or if given a choice, they will pay more for fresher fish with a longer shelf life.
>
> I believe the overall quality has improved on air shipments out of Alaska. The fishermen have more time to dress, ice and take care of the product on board the fishing vessels. In addition, the processing plants are receiving smaller quantities per day and, in most cases, are able to ship the product out the same day as received. As a result, the halibut is handled much quicker and received in the market place in better shape than in pre-IFQ years. [Letter from Dory Seafoods to Robert D. Alverson, August 28, 1997.]

There have been complaints from several shore-side processors that they are not doing well under the IFQ program. It is clear that the raw product cost has not changed very much for halibut from the 1990 prices. It is also evident that the frozen market nature of sablefish makes all ports competitive for sablefish. More importantly, as shown below, the landings per port have not changed materially. What the fishermen do notice is that those processors that have available to them good and reliable transportation, either air or long-haul trucking routes out of such locations as Anchorage, seem to be very competitive for halibut. Those who have chosen as a business decision not to be active in fresh fish marketing probably have lost market share. Processors in western Alaska and the Dutch Harbor area have some access to the fresh markets, but with more difficulty. In these areas, the landed halibut generally reflects a frozen product price. In the case of sablefish, the product must be frozen for export to Japan, and therefore, all Alaskan ports with freezer capacity should be able to participate in that fishery.

Sablefish is unique in that the final destination is Japan or other Asian markets. Sablefish has very few fresh fish sales. The nature of the flesh quality and high oil content make it necessary to freeze the product. The distribution of sablefish before and after IFQs were implemented can be seen in the RAM reports. There has not been any significant change in landings to particular ports of call. [NMFS 1999 IFQ Report.]

In summary, it is evident that quality has improved and halibut is now available fresh throughout an 8-month period. Some of the additional values to the fishermen, considering some of the predictions of the SEIS, are $8.2 million in annual average savings in cold storage costs for halibut; $2.5 million of additional annual average ex-vessel value of halibut; and $29 million in added annual average export value of sablefish. The SEIS discussed savings in gear, food, bait, and fuel costs to the fleet. That analysis estimated annual savings of $1.8 to $2.5 million for food; $3.1

to $4.0 million for fuel; $20.0 to $28.0 million for opportunity cost of labor, and $9.2 to $11.7 million for fixed costs. This statement does not attempt to quantify these actual savings, although they have materialized in all of these categories. These savings and additional values to the fleet have resulted in at least a $75 million net average annual benefit to the industry.

Safety of Fishermen

The Magnuson-Stevens Act provides, "Fishery management measures shall, to the extent practicable, promote the safety of human life at sea." [16 U.S.C. 1851(a)(10).] Senator Patty Murray stated during the Senate Floor debate on S. 39, the Sustainable Fisheries Act:

> "This race for fish creates serious safety considerations in many fisheries. Under this race, fishers feel compelled to keep fishing even when the weather or conditions of the vessel or health of the captain or crew would suggest otherwise. Unless fishery management plans provide opportunities and incentives for fishers to sit out storms and return to port for repairs or medical attention, lives will continue to be lost.
>
> For this very reason we included promotion of safety of life at sea in the National Standards of the Magnuson Act. [*Congressional Record*, September 18, 1996 at S10818.]

The SEIS stated:

> An IFQ program is expected to increase vessel safety by reducing substantially the incentive fishermen have to disregard factors that increase the risk of accidents. However, due to a lack of reliable data and methodological problems, it is hard to provide quantitative estimates on the linkages between vessel safety and other factors, such as management practices. [SEIS, page 2–3.]
>
> In the recently released book, *Fishing Vessel Safety, Blueprint for a National Program,* the National Research Council noted that commercial fishing has one of the highest fatality rates of any occupation and that safety has largely gone unregulated. [Page 142.] While attributing a large portion of the safety issues to the vessel (e.g., its structure, equipment, and crew), the authors did consider fishery management practices to be one of three major external influences on vessel safety. [Page 131.] Allocation conflicts have "resulted in a highly competitive operating environment in which fishermen may take unnecessary risks to maintain their livelihood". [Page 132.]

In addition to its enforcement responsibilities, the Coast Guard monitors safety at sea, and reports that, during the 1998 IFQ season, there were 11 search and rescue missions undertaken (fifteen in 1995, seven in 1996, and nine in 1997). There were no sinkings in 1998 (four in 1997, two in 1996, and two in 1997), and two lives lost (none in 1995, two in 1996, and one in 1997). In the three years prior to the IFQ fishery, there were an average of 28 SAR missions, two vessel sinkings, and two lives lost during the short derby seasons. Three of the deaths have occurred while the vessels were moored in harbor. Only one death has occurred during heavy weather.

Economic Stability in the Fixed Gear Halibut and Sablefish Fisheries and Affected Communities

The Magnuson-Stevens Act provides:

> Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities. [16 U.S.C. 1851(a)(8).]

Although the establishment of the IFQs and CDQs for halibut and sablefish predated this provision of the Magnuson-Stevens Act, the Council and the Commerce Department took into account community interests in designing these management programs. The Commerce Department, in approving the IFQ program, recognized that the open entry fishery for halibut and sablefish had created an extreme excess of capital investment. The Department observed that the excess capital was causing instability and uncertainty in the fishery. The SEIS states, "However, once the adjustments are made, IFQs would decrease uncertainty and increase the ability of fishermen and processors to plan their participation in the halibut fishery." [SEIS, page 2–13.]

> Of the 7,992 different vessel owners who participated in the halibut fishery between 1984 and 1994, 38% did so for only one year while only 9% participated all seven years. It is estimated that 1,443 vessel owners participated in the fixed gear sablefish fishery between 1985 and 1990. Of these, 45% participated in only one year and only 6% participated all six years. [Id.]
>
> This is the case in terms of both short and long-term planning. In areas with only a few very short openings, if a vessel breaks down, a fisherman might miss all or a substantial portion of the season. Likewise, increased fishing effort does not allow processors to plan for consistent or orderly processing. The short-term discontinuities make planning difficult. [SEIS, page 2–12.]
>
> A further benefit of quota systems is deemed to be the degree of certainty given to participants upon which to base their investment and fishing decisions. It is argued that if people are aware of the quantity of fish available to them that they will be able to make soundly based decisions about the future. [SEIS, page 2–54.]

The vessel owners are now able to fish and time their operations, not only around bad weather, but also with a view to market opportunity, so they can efficiently operate in other fisheries that may otherwise have been unavailable to them because of brief, fixed season openings. Prior to the IFQ program, thousands of vessels had two, one-day earning opportunities. Today, earning opportunities, through consolidation, are creating stability within the harvesting sector. Stability has been enhanced by the constraints on quota share concentration, through the use of ownership caps, vessel caps, and vessel classes. These were designed to prevent too great an accumulation of quota share ownership by individuals in the fleet and to ensure processors an adequate number of harvesting vessels. Ownership caps and vessel cap limits are cited in the RAM report, 1999, page 25.

The SEIS stated that, under the IFQ system, people would be able to make sound business decisions about their future. The system was designed to encourage transfers of quota within certain limits. It was designed to encourage an owner-operated fleet. This was provided by requiring new purchasers of IFQs to be on the vessels when the quota shares were being fished. It is clear that the program is functioning as designed. The owner-operator provision is providing stability for crews and vessel owners who work on deck.

Some members of FVOA have chosen to sell, and others have chosen to purchase, quota shares. The results are that for those who have chosen to purchase, the owners and the crews are earning more. Those who have sold out have received some compensation for their past investment and efforts. The crews that have been displaced to date are those who were participating in two, one-day jobs. The SEIS states on this issue, the following, "In considering the employment effects of an IFQ program, it should be remembered, that many fishermen take a break from other fishing or non-fishing activities to participate in the halibut fishery. Therefore, their alternative to participation in the halibut fishery is not unemployment." [SEIS, page 2–10.] However, the IFQ fisheries are becoming attractive as full or near full time employment opportunities.

In terms of stability for the local communities, there have been some claims that the IFQ program has adversely affected the ports of Kodiak and Dutch Harbor. The 1997 IPHC Annual Report list by port the halibut landings as follows:

1. Kodiak	20%	9,103,000 Lbs.
2. Homer	12%	5,242,000 Lbs.
3. Seward	9%	3,876,000 Lbs.
4. Dutch Harbor	6%	2,855,000 Lbs.
5. Sitka	6%	2,800,000 Lbs.

The RAM September 1997 report, page 50, shows that, in 1995 and 1997, the top five halibut ports remained the same as in 1994, and the percentage of landings was similar.

With regard to sablefish, the SEIS did not provide analysis similar to that for halibut, however, in looking at the 1990 data provided in that document, four of the top five districts are still in the top five for landings, when compared to the 1997 September RAM report, page 50.

1. Wrangel, Petersburg	7,121,000 Lbs.	26%
2. Sitka Borough	6,131,000 Lbs.	22%
3. Seward Borough	4,302,000 Lbs.	15%
4. Juneau Borough	2,481,000 Lbs.	9%
5. Kodiak Island Borough	2,134,000 Lbs.	8%
6. Aleutian West Borough	not available	

The IFQ program was designed to have a minimal impact on communities, by preventing a massive redistribution of landings. This was accomplished significantly with the three-year qualification period of 1988, 1989, 1990, where there had to be a landing to qualify for any poundage in one of these years. This helped ensure that quota holders were still active and operating in the same location as was historically the case. Clearly, this has been accomplished as shown by the hard evidence of landing reports. An argument of economic disadvantage to Kodiak or Dutch Harbor based on IFQ poundage being delivered elsewhere cannot be substantiated.

The instability of these communities is most likely the result of the remaining pulse-type groundfish fisheries. The fishermen in the Kodiak area have three, three-day pollock openings; Pacific cod has barely a two-month operation. The landings in Kodiak were down between 1995 and 1996 by 160 million pounds; none of this reduction could be attributed to the IFQ program. In 1997 and 1998, Kodiak landings rebounded to 277 and 362 million pounds, respectively. This reflected increases of salmon landings.

Fisheries of the U.S. 1998, NMFS

Similarly, landings in Dutch Harbor were reduced by 105 million pounds between 1995 and 1996. The argument that this was due to the IFQ program is similarly insupportable. It was due to a reduction in pollock landings. The landing in 1997 and 1998 were 587 and 597 million pounds respectively, which are still 100 million pounds below 1995 levels. This is all due to pollock landings, not IFQ halibut or IFQ sablefish. [Id.] The 1999 RAM Report, pages 13 and 14, show the same ports in the top 10 as in previous years for halibut and sablefish.

Rural Coastal Community Development of a Small Boat Fishery

The SEIS made the following statements and conclusions regarding rural coastal community development of a small boat fleet:

> The Council wished to enhance the opportunities for rural coastal communities to participate in the sablefish and halibut fisheries. It was in pursuit of this objective that the western Alaska community development program was inserted into the preferred alternative. [SEIS, page 2–55.]
>
> Opportunities for small communities will be enhanced by having portions of total allowable catches set aside. [Id.]
>
> Many of the constraints imposed on transferability have been introduced to preserve a small boat fishery for sablefish and halibut. [Id.]

The community development quota program was specifically set up for western Alaska rural communities. The CDQs for 1999 amounted to 2,610,000 dressed pounds of halibut. In the halibut regulatory areas of 4C and 4E, all of the CDQ quota, 1,400,000 pounds, was harvested and landed by the local community.

The ex-vessel value of CDQ-landed halibut was approximately $5,200,000 (Dutch Harbor price, $2.00). The CDQ halibut quotas thus are a significant benefit to the coastal community of western Alaska and the small vessels which operate out of those communities.

The Gulf of Alaska's small boat fleet vessels, less than 35 feet in length, have a secure position in the fisheries. Poundage earned by initial recipients is safeguarded permanently in their vessel length category.

The small boat fleet has been additionally enhanced with recent regulatory amendments that allow quota share holders operating small vessels to buy quota from larger vessel classes and fish that quota on the smaller vessels. IFQ holders operating larger vessels cannot use smaller vessel class quota on their larger vessels. This new provision gives smaller vessels, which tend to operate close to shore, more purchasing opportunity.

As noted above, the 1996 amendments to the Magnuson-Stevens Act provided for a government loan program funded, in part, from landing fees of the IFQ participants. [16 U.S.C. 1853(d)(4).] Those who can apply for the loans are fishermen with little or no holdings of IFQs. The amount per loan is limited to about 8,000 lbs. of resource, and anyone holding or controlling 50,000 lbs. or more of quota is not eligible for the loans. Congress chose to help out the crews and those fishermen looking for upward mobility in the industry. This program should help rural citizens who have few cash-generating industries.

However, I cannot leave this subject without noting that the conference report on appropriations for Commerce, Justice, State and other agencies for fiscal year 2000 purported to divert halibut/sablefish IFQ fees from their intended purposes in the North Pacific to Hawaiian communities. To comply with this conference report directive would be a gross violation of the express provisions of the Magnuson-Stevens

Act and an unconscionable breach of the Federal Government's commitment to the fishermen, communities, and fisheries of the North Pacific. I urge our elected representatives in Congress to stop this ill-considered diversion of funds.

Comment on Gulf Coastal Communities Proposal

The Gulf of Alaska Coastal Communities Coalition will be sponsoring a proposal which would allow certain tax exempt coastal village corporations of Alaska to participate in the purchase of IFQ for halibut and sablefish. The villages are part of the large native regional corporations set up under the Alaska Land Settlement Act program. There are about 42 villages in the Gulf of Alaska that have been identified that would participate in these purchases. The Fishing Vessel Owners Association and Deep Sea Fishermens Union oppose this for the following reasons.

1. The halibut and sablefish IFQ program was set up to ensure an owner operated fleet in the future. For the past 5 seasons crew and boat owners have been purchasing QS on this basis. The GACCC proposal would allow corporations to bid against crew and boat owners in the market and lease back to certain village fishermen. This would begin to turn the fishery into a company store fishery with the fisherman not being the owner of the QS.

2. The 42 villages are part of five larger native regional corporations that generated well over 200 million dollars in net operating profit last year. There is no reason these regional corporations can not assist the villages and underwrite the local fisherman if there is a problem.

3. Some of the existing sources of funding at this time are as follows: (a) The Bureau of Indian Affairs provides individual business loans of up to 500,000 dollars and each individual village can qualify for up to a 5,000,000 dollar loan, which could be used to help local residents. (b) The State of Alaska has its own loan program for Alaskans. In fact, the State provided loans for 199 IFQ holders, according to the RAM Report, 1999, page 23. (c) The village fishermen can participate in the existing IFQ loan program established under the 1996 Magnuson-Stevens Act amendments. The NMFS loan program has provided loans for 14 IFQ operators. [RAM Report, 1999, page 23.] (d) Private banks have provided loans for 1,234 IFQ holders. [RAM Report, 1999, page 23.]

We also have the concern that if 42 villages maximized the ownership privileges that this could result in 40 percent of the resource of sablefish and 20 percent of the recourse of halibut being bought up from the existing quota share pool. There is a concern that over the long term the quota purchased by the villages will not circulate for future purchases as does quota share when existing crew and/or boat owners retire. This will push up the cost of entry for crews and new vessel owners that are not members of the villages. In addition to this the villages are tax exempt, which will give them a 20 percent advantage on price when bidding against crew and boat owners.

WEST COAST GROUNDFISH

Major groundfish fisheries off the coast of Washington, Oregon, and California are in severely depressed condition. The impact on the affected industry and dependent communities is serious.

Key Facts About Stock Conditions and Economic Impacts

Certain key ground fisheries off Washington, Oregon, and California have had the following reductions in allowed harvest since 1982, when the Pacific Council adopted its groundfish management plan.

	1983 ABCs	2000 ABCs
Sablefish	13,400 mt	9,692 mt
Widow rockfish	18,300 mt	5,750 mt
Lingcod	7,000 mt	700 mt
Bocaccio	6,100 mt	164 mt
Canary	2,700 mt	356 mt
Dover sole	19,000 mt	9,426 mt

The cut back in harvest level in 1998 resulted in revenues to the vessels dropping from $99,479,252 to $67,803,000. [SAFE document, 1999, Pacific Council.] This represented a 32 percent drop in income. The revenue information from 1999 is not available, but should show a further income decrease, as the Council reduced the rockfish harvest in 1999. The 2000 harvest levels have been reduced from the 1999 levels, with the addition of 5 overfished species. When a resource has been declared

overfished, additional restrictions are required. It is anticipated that some fishing will have to be curtailed in 2000, because certain overfished resources will hit their harvest limits midway through the year. This will result in the allowable harvests of the healthy resources not being fully taken. The State of Oregon has predicted that the 2000 cuts in harvest could result in an additional $24 million in lost income.

The condition of these fisheries has resulted from failures of local science, regional management, and national policy. Due to poor data and dubious scientific analyses, stock assessments have been fatally flawed. Lack of confidence in the science, and failure to employ the precautionary approach have led to excessive allowable catches. Belated management responses to the deplorable condition of the groundfish fisheries have been hampered by the moratorium on IFQs and by overly broad interpretations of it. The Pacific Council has reduced harvests in each of the past three years, but has been unable to institute a management system that would mitigate the economic impacts and reduce excess capacity.

Management of trawl and fixed gear operations is accomplished with the use of trip limits. The trip limit management tool can be successful when the amount of fishing effort matches up with sufficient quantities of fishery resources. This tool fails where there is an imbalance. The lower Pacific Coast has too much effort and too little resource. Other than for fixed gear sablefish harvests, all trip limits are the same for every vessel. There is one set of trip limits per vessel, and that set applies uniformly to all vessel sizes and gear types. Currently, two or more licenses cannot be combined, or "stacked", for a single vessel, thus precluding an efficient means of consolidating excessive effort. Consequently, the fisheries remain extremely inefficient and difficult to manage for conservation.

For each trawler or longliner, trip limits apply to 14 species. These trip limits are supposed to be harvested once every three months, and sometimes, once every two months. These limits become, as they are now, economically unsustainable when allowable harvests fall below, and harvesting capacity rises above, certain levels. Most of the economically important species for the fixed gear industry have such low trip limits that the fixed gear vessels have in many cases ceased to operate, except for sablefish. The recent reduction for the 2000 season will likely be as disastrous to the trawl fleet as preceding reductions have been to the fixed-gear fleet.

The fixed-gear sablefish fishery is managed with three tiers, each tier having a different trip limit based on the historical production of the participating vessels. In 1999, each vessel that had a sablefish permit was allowed a nine-day season, regardless of the poundage of the applicable tier. The Pacific Council attempted to allow a longer period of time for harvest, in order to provide for safety, reduce management uncertainty, and better fit sablefish harvests with other fishing activities. However, the NOAA General Counsel's Office maintained that, to allow too much time to catch a trip limit would be construed as an IFQ, and therefore, would violate the moratorium in the Magnuson-Stevens Act. On the basis of that ruling, the Pacific Council is currently forced to adjust harvest time and trip limit sizes for the fixed gear sablefish fleet in a manner that creates a 26% probability that a trip limit will not be achieved during a given fishing time. This percentage is called "overhead". Overhead guarantees that the race for fish in tightly constrained fisheries suffering from excess capacity will be greatly accelerated. Conservation and safety risks, as well as economic inefficiency, increase accordingly. Ever greater financial pressures lead vessel owners to add more crew, conduct fishing operations around the clock, and fish in dangerous weather conditions. For their part, the government managers occupy themselves with readjusting the fishing periods to account for fluctuations in the fisheries in a manner that will ensure continued achievement of the 26% probability that the trip limits will not be reached.

The fixed gear solution that has been discussed and supported by many of the affected permit holders would include allowing the existing sablefish tiers to be harvested over a nine-to-twelve-month time frame. Of course, this would require removal of the overhead requirement, because any season this long would result in the certainty of a permit trip limit being harvested. In view of the prevailing legal ruling, the removal of the overhead requirement would be permissible only if the Magnuson-Stevens Act moratorium were lifted for this fishery.

The ability to "stack" the permits and provide for reasonable, cumulative trip limits for sablefish and/or other groundfish species is also supported among those who operate in these fisheries. This approach would allow the fleet size to be reduced, so that harvesting capacity would better fit with the available resource and management would be less difficult. NOAA General Counsel has indicated that allowing stacking begins to assure fishermen certain guarantees of achieving trip limits, and therefore, cannot be reconciled with the IFQ moratorium. Here, again, the need for lifting the moratorium becomes evident.

As noted, above, the other, vital need is to authorize an industry-funded observer program for the west coast groundfish fisheries. This requires an amendment to section 313 of the Magnuson-Stevens Act. [16 U.S.C. 1862.] I have noted that the present economic conditions in these fisheries is such that industry fees to fund an observer program would be unwelcome. However, as I have also noted, the establishment of a credible observer program is indispensable to gaining an understanding of the groundfish fisheries that will allow their effective conservation and management. If Congress will not appropriate the funds in the public interest to provide for such a program, then there is no alternative to industry, in its own interest, finding the means to do so.

There are provisions of the Magnuson-Stevens Act that would appear, at first blush, to have some potential for ameliorating the conditions in the west coast groundfish fisheries. However, upon close examination, each of these provisions has its deficiencies. Fisheries disaster assistance, as provided by section 312(a) of the Magnuson-Stevens Act (16 U.S.C. 1861a(a)) has merit, within limits. It does not answer the need for a long-term resource recovery program, and there are many issues concerning appropriation and allocation of funds under this section that would have to be resolved before short-term relief could be implemented. Accordingly, I believe that, if fisheries disaster relief is seriously pursued, it must not be allowed to divert attention and effort from achieving the long-term solution of reduced fishing capacity and increased resource abundance. I add that this provision does not authorize funding beyond the end of fiscal year 1999.

An industry-funded capacity reduction program, as authorized by section 312(b)–(d) of the Magnuson-Stevens Act has some superficial appeal. However, the economic and resource conditions of the west coast groundfish fisheries are so badly deteriorated, it is difficult to see how the statutory requirements can be met for financing a buyback.

CONCLUSION

By any rational measure, the halibut/sablefish IFQ program has been a great success. With this example firmly established, individual transferable quotas should be available to fisheries managers nationwide, and in particular, should not be barred for west coast groundfish fisheries. In addition, Congress should authorize an industry-funded observer program for the west coast groundfish fisheries, so that, if federal funds are not forthcoming, vitally needed observer data can be secured, nonetheless.

Senator SNOWE. Thank you, Mr. Alverson.

Mr. Brown.

STATEMENT OF RALPH BROWN, MEMBER, PACIFIC FISHERIES MANAGEMENT COUNCIL

Mr. BROWN. Thank you, Madam Chair, members of the Subcommittee. I am Ralph Brown. I am a trawl boat owner here on the coast and also a Member of the Pacific Fisheries Management Council.

Fishing is basically all I have ever done, so if I come across as a fisherman, that is why. That is what I am.

I am not going to read my testimony. I spent about four pages basically saying that the big problem is we do not have the information. And whether the Magnuson-Stevens Act would work as presently constructed with the right amount of information, I do not know. Because we do not have it. If we had the right amount of information, I do not know.

One thing I do know on this coast, is that if we started collecting much of the information we need to adequately manage it, it is going to take enough years that the effects that we are feeling now basically will have become permanent in the fleet. As a consequence, my focus has to be on what do we do with those people. We have got to do something for those people. We cannot just say, well, too bad, folks; it was a good run for your money, but now you are out.

In my testimony I did forget to put one comment in. I agree with Bob on the desirability of ending the moratorium on ITQ's. I know that has been a contentious issue. And if you cannot see your way to end the moratorium on ITQ's, I would at least ask you to look at the National Marine Fisheries Service interpretation of what an ITQ is—it is very broad right now—and see whether or not that was really your intention in the moratorium. We run into the definition of an ITQ in places that I just would not think you would. So I would at least ask you to do that.

Ideally, of course, we would have the information to adequately manage our fisheries, to do the things that the Magnuson-Stevens Act require. In the absence of that, when we are left with the great uncertainty that we have, it appears that the only response we have now are actions that destroy industries. Mr. Phil Anderson mentioned the dungeness crab fishery as one that we have been asked to manage. We sort of delayed with the interim language. We do not know whether we are going to be asked to manage it in the future.

I took, admittedly, a quick and dirty look at the regulations and requirements that we would have to use if we managed the dungeness crab fishery. And I came up with a reduction in catch of 60 percent. That fishery today is considered to be one of the best managed fisheries on the coast biologically, and yet I still come up with we would be required to reduce it by 60 percent.

We need to think about our definitions of MSY. That is a fishery that our current definition does not fit very well. And in fact, one of the reasons that we did not have a management plan before is that we could not get advice from our scientists on how we would even define MSY for that fishery, it is so variable. Catches have run, since 1952, have run from a low in the State of Oregon from 3 million pounds up to a high of 18 million pounds. It is not a stable kind of resource. It bounces all over.

While we were developing our coastal pelagics plan, the squid portion was turned down by National Marine Fisheries Service. Our scientific statistical committee advised us they did not know how to develop a MSY for the squid resource. It is another that is extremely variable due to environmental conditions. So we need to rethink that a little bit.

But the main thing that we need on this coast is better information. And in the absence of better information, we need, along with the absence of better information, we really need to do something for our people that are just literally going to have to leave the fishery.

Thank you.

[The prepared statement of Mr. Brown follows:]

PREPARED STATEMENT OF RALPH BROWN, MEMBER, PACIFIC FISHERIES MANAGEMENT COUNCIL

Thank you for asking me to testify before this Sub-committee. I am Ralph Brown of Brooking, Oregon. I grew up in the fishing business and currently own two trawlers that fish out of Southern Oregon. I am vice-president of Fishermen' Marketing Association (FMA), a trawl organization that has approximately 600 members living in Washington, Oregon and California.

I also serve on the Pacific Fishery Management Council (PFMC) in one of the At-large seats. I am currently in the middle of my second term in that position.

For this testimony, I am speaking only for myself and am not speaking for either the FMA or the PFMC.

A discussion of management and management failures in this region has to focus on a discussion of the information that we use. A lack of, or in some cases, poor information characterizes management of fisheries along this coast.

The Council and Council staff worked very hard to upgrade our management plans to be in compliance with the new requirements of the Magnuson-Stevens Act. This was so time consuming that good ideas for improving management of our fisheries had to be deferred. We are just now getting to the point where we can move forward with new management ideas.

What was the result of all of this hard work? We are left with a description of Essential Fish Habitat that includes nearly all of the aquatic habitat from the top of the Rocky Mountains to the western edge of the EEZ. We simply didn't have the information to narrow the description any further. We are left with a requirement to minimize impacts on habitat by fishing gear, with no idea what those impacts are. We are left with a requirement to consider social and economic information but with no social or economic information to use. We are left with the requirement to minimize by-catch without knowing how much by-catch is occurring or who is producing it. We are left with a requirement to end over-fishing on stocks for which we don't have the foggiest idea as to their condition, because we don't have the information to do assessments on the majority of the species listed in our management plan.

I have been an observer of this management Council and the management process for a long time now, for two decades. I find the people involved to be sincere and dedicated to proper management of our fisheries. You will hear people saying that the state of our fisheries is bad because the Council did not make hard decisions when they were needed in the past. This is not true. This Council has never shied away from hard decision. As an example, this Council adopted a limited entry plan back when limited entry was a controversial subject throughout the country. This Council has never had an information base that was adequate to base decisions on.

The shortage of information is particularly acute with respect to stock assessments and harvest levels. Our assessments have bounced all over the place.

Our normal schedule is to assess the stocks that we assess every three years. Three years ago, harvest levels for sablefish were at 7,000 tons. The management team came to the Council with a recommendation to reduce harvests to 2,500 tons. They said it with a straight face. I argued successfully to delay the full cut and we reduced catches to 5,300 tons, with a promise to have a new assessment the following year, rather than on the normal three year schedule. This assessment occurred and the next year the management team recommended an Acceptable Biological Catch number of 9,692 tons. They said this with a straight face also.

Much of the management of our deep water fishery is driven by management of shortspine thornyheads. A paragraph from the Stock Assessment Review Panel Report of 1997 states "The thornyhead assessments are particularly short of data, but the management regime nonetheless requires a specific number based on a sophisticated reference point as a basis for the ABC. The assessment is unable to deliver that ABC estimate with certainty. This means there is a high probability that management will simply be unable to achieve the desired target."

We are going through an examination of our harvest policies right now. This is the fourth examination that I am aware of. The previous examinations have resulted in successively more restrictive harvest policies. I expect the next harvest policy to be more restrictive than the last. Overly lenient harvest policy has been given as the reason that we have overfished species. This may be true, but the Council followed the advice of its scientists in each case.

At this point, the proper question to ask of our scientists is: Does anyone here have any idea of what is going on in the ocean?

I am critical of the science that has been used on this coast. I hope this is not viewed as criticism of the scientists here. All of the scientists here have done their best with the shortage of information that they have to work with, but they also can't make a silk purse out of a sow's ear. We have to be given permission to admit that we have sow's ears and not be forced to continually pretend that they are silk purses.

What happens today if we successfully argue that the science is flawed? National Marine Fishery Service recommends that greater uncertainty in the stock status be matched with greater precaution in harvest. If we successfully argue that the science is poor, then we have demonstrated a greater uncertainty and get larger cuts in harvest. It's like being involved with a protection racket: "If you argue with our science we'll cut you worse."

Most of the members of industry here think that the science that we base our decisions on is inadequate. We've tried to lobby for more research money and we've tried to work with National Marine Fishery Service to increase our understanding of our resources. We haven't gotten very far for a variety of reasons, and now the shortage of information threatens to destroy the industry.

I believe that we are not done with the cuts in harvest. National Marine Fishery Service has been sued by a coalition of environmental groups that claim that not enough protection has been given the unassessed stocks in this region. There is a reason that the stocks are unassessed. We simply don't know enough to do assessments on them.

National Marine Fishery Service has guidance on dealing with stocks that can't be assessed. Their guidance is to reduce the catch on species like this by twenty-five to seventy-five percent. These species are all incidentally caught, along with other targeted species. The only way to achieve a reduction in the unassessed species is to reduce the target catch by an equivalent amount.

In 1982, landings of groundfish, other than whiting, were 119,000 tons. According to the latest report, in 1999, landings were 36,000 tons, a reduction of seventy percent. There are people saying that that reduction is not enough.

If my fear of the future comes true, we will have reduced catches of groundfish, other than whiting, on this coast to 15,000 tons, or a reduction of nearly ninety percent, and there will still be people saying that that is not enough of a reduction due to the uncertainty of our assessment process.

I don't want a shortage of information to be an excuse for overfishing, but it is unacceptable that the only response allowed today to a shortage of information is to destroy an industry.

The Council now has five species that are listed as overfished. We have rebuilding plans developed for three of them. The remaining two, canary rockfish and cowcod, were declared overfished this year, and rebuilding plans have not been developed for them yet.

The time required for rebuilding of these species has been projected to range from ten years for lingcod to nearly fifty years for Pacific ocean perch. Some of the model runs for bocaccio rockfish showed rebuilding not being finished for 300 years. When canary rockfish and cowcod rebuilding plans are developed, the rebuilding period will be similar to that of Pacific ocean perch.

These rebuilding plans cannot be viewed as temporary and they can not be viewed as actions that will result in a stronger industry for anyone fishing today. We have made permanent changes in the industry and have entered a brave new world of fishery management.

This brave new world may work if the information needed to make it work is provided, but we don't have that information today and it will be many years after we start to collect the information before it will be sufficient to make wise management decisions.

What do we do for people involved in fisheries now? We have very nearly destroyed the industry. Continuation of this course of management will destroy the industry. The promise of a better life fifty or one hundred years from now is not sufficient.

Today we have many displaced workers and large amounts of displaced capacity. If we continue along our management path we will have larger numbers of displaced workers, and larger amounts of displaced fishing capacity. We have to deal with these as top priority.

Unless we address the capacity that is and will be displaced by these cuts in groundfish we will spread the impact of these cuts to all parts of the industry. Dealing with this displaced capacity must be a top priority for fishery managers in the very near future.

In closing, I do not have specific recommendations, today, for solutions to the problems that are facing us in management of fisheries along the west coast. I am working with other members of industry to develop recommendations and we look forward to working with you to solve these problems.

Priorities would be to improve the information base that we use to make management decisions and to provide for the people that we are displacing, and, finally, I would like to repeat that destroying an industry, as the only allowable response to uncertainty, is not acceptable.

Thank you.

Senator SNOWE. Thank you.

Mr. Moore.

STATEMENT OF ROD MOORE, EXECUTIVE DIRECTOR, WEST COAST SEAFOOD PROCESSORS ASSOCIATION

Mr. MOORE. Thank you, Senator Snowe. For the record, my name is Rod Moore. I am Executive Director of the West Coast Seafood Processors Association. And I sort of feel like I am a constituent of all of you since I was born in Portland, Maine, and lived in Alaska for several years, and worked for Senator Stevens' colleague, Congressman Young, for 18 years, and I am now living on the west coast, with several of our members in Washington State. So I want to thank all of my Senators for coming here today.

[Laughter.]

Senator SNOWE. You have covered all of your bases.

Mr. MOORE. I have tried.

[Laughter.]

You have my written testimony in the record, and I just want to highlight some of the things that I talked about there. There are three issues in particular which, in combination, have really done the most to exacerbate our problems in terms of fisheries management on this coast.

First, as you have heard from a number of witnesses, is science or, rather, the lack thereof. The standard in the Act calls for using the best scientific information available. We have the standard of no scientific information available. If you look at the research abilities, time series and so forth in the Bering Sea and in New England and you contrast that with the west coast, you will find that we are sorely lacking in the basic scientific data that is needed to properly manage the fisheries.

We are at the point where we have to go out and beg people for money for an annual trawl survey that we started a couple of years ago, using industry vessels. It is the sort of thing where we are trying to get the National Marine Fisheries Service to pull money out of one pocket and put it in another, just so we can do a basic survey. And these are the sorts of surveys that other parts of the country have available to them. And without science, the requirement to impose a precautionary approach is almost automatically going to lead to reductions in harvest.

The second issue is the whole treatment of overfishing and rebuilding required in the Act and the regulations which implement the Act. A fishery is overfished if, regardless of cause, it has declined to a low percentage of virgin spawning biomass. However, without a survey time series—which we really do not have because we do not have any science, remember—virgin biomass must be calculated from the computer model using current data.

But if the current data set is not the best, then you have to make assumptions using what little you do know. So if your data base is zero and you use that to back-calculate, you get zero, and then you take a ratio, what do you get? You get zero. In other words, you are overfishing almost automatically. And once you are overfishing, you have to develop a rebuilding plan. And what do you base that rebuilding plan on? It is the same lack of data that you have already got.

Obviously I am exaggerating a little bit here, but it illustrates the problem of trying to use sparse data to manage fisheries under very stringent legal requirements. And what is even worse is that

we may be asked to rebuild to an impossible state of nature. Fish exist in a complex environment of depth, salinity, temperature, prey, predators, and competitors. Their populations are dynamic. They are not stable. They are not point estimates. They change over time. And they often change relative to each other and because of each other.

Senator Stevens, I know you are aware of it in the Gulf of Alaska, what has happened with the tremendous increase in arrow tooth flounder up there as a result not only of changes in the aquatic environment but also the fisheries that have occurred in other species. Arrow tooth flounder moved in. If for some reason we were able to develop the fishery on arrow tooth flounder but we had to rebuild one of those other fisheries to some level that comes from who knows where, you are going to wind up depressing arrow tooth flounder to get someplace else. So you just go back and forth on rebuilding one or the other.

So we are asked to bring single stocks back to a level that the ocean may no longer be capable of supporting, and to do so within a politically defined area as opposed to an area where the fish may actually exist. On this coast, sablefish is a great example. Sablefish can be found from Mexico all the way up past Canada, out to Alaska, and over to Japan and Russia. What we have to look at, in terms of whether sablefish are declining, overfished, where they are, is a political segment. We cannot really look at what is going on someplace else.

Finally, the third issue, which is related to the first, is that if you, as the Congress, require us to do something, please give us the resources to do it. Do not tell us we are overfished and then not provide us with the science and management capability to do rebuilding plans. And do not tell us to reduce capacity to save fish and then deny us the tools to do so. Do not tell the seafood industry that we will be responsible for research and management but neglect to give us the rights and privileges we need to carry out that responsibility.

We need the science, realistic legal structure and appropriate resources. There are 6 billion people here on earth. Please give us what we need to help feed them.

Thank you.

[The prepared statement of Mr. Moore follows:]

PREPARED STATEMENT OF ROD MOORE, EXECUTIVE DIRECTOR, WEST COAST SEAFOOD PROCESSORS ASSOCIATION

Madame Chair, members of the Subcommittee, I appreciate the opportunity to present this testimony on behalf of the West Coast Seafood Processors Association (WCSPA). Our Association represents shore-based seafood processors and associated businesses in Washington, Oregon, and California. Collectively, our members process the majority of Pacific groundfish, Dungeness crab, and pink shrimp landed in those States, along with substantial quantities of salmon, sardines, swordfish, albacore tuna, and a variety of other species. Three of our members also operate facilities in Alaska. Most of our member companies are family or individually owned, some for several generations.

Most of my testimony will discuss the effects of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) on the Pacific groundfish fishery, so it may be helpful to understand a bit about that fishery. The Pacific groundfish fishery, which is primarily managed by the Pacific Fishery Management Council under a fishery management plan, comprises some 83 different species, most caught in as-

sociation with others. The fishery is the largest on the west coast in both volume and value and is the economic mainstay of our coastal fishing communities.

The majority of groundfish landings are by trawl vessels, although there are significant components taken by fixed gear (both hook-and-line and pots) and recreational vessels. A limited entry permit system has been in effect since 1994 and most landings are by limited entry vessels. There is also an "open access" component of the fishery which includes shrimp trawlers that incidentally take groundfish, small hook-and-line vessels, and the small beach-launched dory fleets in Oregon and California. Finally, there is an offshore fleet that harvests Pacific whiting, composed of catcher-processors and motherships that are supplied by smaller trawl vessels.

Under the fishery management plan, harvests are allocated among the different entities, as well as to tribal fisheries in accordance with treaty provisions (some of which are under legal challenge). Harvest levels are generally set as coast-wide limits, though some species have different limits in the north and the south due to their relative abundance. Most recently, in order to address concerns with population sizes, the several rockfish species have been subdivided based on their normal occurrence by depth: near-shore, shelf, and slope.

Along with overall harvest levels, individual vessel harvests are regulated by cumulative trip limits, which may vary throughout the year and by type of gear used. The current gear restrictions on cumulative limits, which largely were developed by the seafood industry in order to conserve distressed species, impose greater restrictions on the harvest of those species which have been designated as "overfished".

Now that you know everything about the Pacific groundfish fishery, let me turn to the statute that governs how it operates—the MSFCMA. Before getting into specifics on the Act and its implementation, there are some general principles which we all need to think about.

First, assumptions. Before taking my current job over five years ago, I spent nearly 18 years on the staff of the U.S. House of Representatives, working for Congressman Young of Alaska and the Committee on Merchant Marine and Fisheries. Between January, 1977, and December, 1994, many of the changes to the MSFCMA were my "babies"; I was the House staffer who helped draft them and monitored their implementation. In doing so, I made a number of assumptions about how the language of the law and the intent of Congress would be carried out, just as you and your staff do today. Only after leaving Congress and coming to work for the seafood industry did I discover how wrong I was in many of my assumptions.

Just to give you a small example: when the MSFCMA was passed, it created eight regional Councils in recognition of the regional differences in fisheries. We then proceeded to put in place national standards, mandatory provisions for all fishery management plans, etc. In short, we ignored the fact that we had created a regional system and imposed a one-size-fits-all pattern. So, the Congress talks about doing things via fishery management plan amendment, when in some cases—and Pacific groundfish is a good example here—the fishery management plan is a framework and everything accomplished under the plan is done by regulation. So, we wind up arguing with NMFS, NOAA General Counsel, and the Office of Management and Budget as to whether what we want to do with Pacific groundfish qualifies as a "plan amendment" even though it is being done by regulation. Frustrating as it is, this is only a minor example of making incorrect assumptions.

Second, put your money where your mouth is. The workload imposed on our managing entities—both NMFS and the Councils—and on the seafood industry by statutory requirements is not matched by the resources needed to get the job done. As a result, we are constantly robbing Peter to pay Paul, and pretty soon both of them will go bankrupt. For example, there are numerous requirements for considering environmental, economic, and social impacts of regulations. These are all good things and the Congress has tried to streamline the fishery management process by having all analyses completed by one deadline. Unfortunately, no resources are provided to develop the database on which such analyses depend, or to provide the people to do them. In the NMFS Northwest Region, there are 3 people working full time on all aspects of groundfish management—that's three people to cover the biggest and most valuable fishery on the west coast. Looking at the science side, it's even worse: the harvest levels for yellowtail rockfish in 2000, for example, are based on 4 to 5 year old data. We have had at least one El Niño, one La Niña, and the beginnings of a major ocean regime shift since those data were collected, and this is one of the better examples. We scramble to find boats and money to conduct surveys, we have fewer stock assessment scientists than are listed in the NMFS Table of Organization, and yet our managers and scientists are being asked to produce more and more science. Something has to be done before the system collapses under its own weight.

Third, we need to remember that fish stocks are dynamic and subject to a wide variety of fluctuations in size, location, and productivity. We cannot assume that what is here today will be here tomorrow nor, if it is gone, that human beings were the primary cause. We cannot assume that fish stop at some arbitrary political border in the ocean. We need flexibility in our management. Split-nosed rockfish (known locally as "rosefish") in central California are a good example. In 1998, huge numbers of rosefish were found; in 1999, the numbers went back to "normal" levels for the same mysterious reason that they bloomed the year previously. How did management respond? In 1998, there was no avenue for raising harvests for that year; instead harvest levels were increased in 1999. So, in 1998, fishermen had to discard rosefish to stay within their legal limits, and in 1999 they couldn't catch what was allowed because the fish had moved on. Fish—and fishermen—are dynamic; the law and management need to recognize that.

So let's turn to specifics. The Subcommittee's letter of invitation asked me to testify specifically on the impacts that the 1996 amendments to the MSFCMA (known collectively as the "Sustainable Fisheries Act") have had on the west coast fisheries. The following comments are on particular provisions of the Act:

Optimum Yield definition—In the 1996 amendments, the Congress amended the existing definition to prohibit increasing harvest above maximum sustainable yield (MSY) due to social and economic factors. This causes a variety of problems. First, MSY is often unmeasurable; in fact, the Pacific Council uses a proxy for MSY which is a harvest rate that results in a remaining spawning stock biomass of some percentage of what would exist absent any fishing. Our optimum yield is established by applying that harvest rate to the current biomass (as estimated through stock assessments) with necessary reductions if the current biomass is judged to be below 40% of the virgin biomass. In effect, we are taking a number—which may have confidence intervals of as much as 50%—and treating it as a point estimate, then reducing it. We have completely abandoned flexibility. Rather than the iron-clad definition found in current law, we would be far better off stipulating that "optimum" reflect some accepted scientific principle (rather than MSY) as modified to meet appropriate conditions.

Best scientific information available—This is the "science standard" on which many provisions in the Act are based. It is not defined. Like beauty, it often seems to be in the eye of the beholder. For example, several years ago the biomass estimates for Pacific whiting were reduced by 40% based on a single experiment conducted by a single scientist. When we suggested that more work be done before making such a drastic reduction, we were told that the single experiment constituted the best scientific information available and the new technique would be used. The standard needs to be defined; it needs to incorporate a peer-review process, and it needs to take into account anecdotal data. And if the Subcommittee is interested in a peer-review process that works, I recommend looking at the process used by the Pacific Fishery Management Council which involves scientists, fisheries managers, and industry representatives formally analyzing stock assessments.

Overfishing, the term—Before discussing the process used to deal with overfishing, I hope the Subcommittee will think about the term itself. If a fish stock declines for any reason, it is considered "overfished." Unfortunately, the term implies human—and indeed, harvest related—causes, even though it may simply have been Mother Nature throwing us a curve ball. Since few members of the media and even fewer members of the public have any clear understanding of the legal basis for an overfishing declaration, the seafood industry gets the blame and you in Congress get letters from irate citizens demanding that you do something to curb the excesses of those avaricious fishermen. Pacific Ocean Perch (POP) is a good example. POP have been considered overfished for 20 years because of the current biomass level in relation to virgin biomass. And how do we estimate POP virgin biomass? It is based on harvest reports from Russian trawl vessels that operated off our coast long before the MSFCMA was first enacted, reports whose veracity is highly questionable. In fact, there is speculation that POP were never abundant off the west coast, that what we have is a fringe population whose center is in Southeast Alaska. Yet we get the blame. Perhaps a term such as "distressed fishery" might be more appropriate, a term which takes into account population declines from a variety of sources.

Essential fish habitat—Under current definitions and guidelines, the entire ocean has been declared "essential" for many species, thereby both diluting the effect of this change in the law and putting additional burdens on the seafood industry, since the effect of fishing gear on essential fish habitat is about the only thing that gets regulated. We need to look at ways to go after areas that truly are essential.

Conflict of Interest—We are rapidly approaching the point when we will make it impossible for individual fishermen and processors to serve on management Councils, a direct contravention of the cooperative management system that was originally envisioned in 1976. Under NMFS' interpretation of the law, a 10% interest in a fishery triggers a ban on Council member voting. However, what varies is whether the 10% test applies to a fishery as a whole (e.g., the Pacific groundfish fishery) or to a port or region (e.g., the port of Astoria or the lower Columbia River region). It is a fact of life that our fisheries are consolidating and thus getting smaller in many areas. Applying the 10% test to a particular port or region can easily prevent a Council member from voting on most issues. To make matters more confusing, a representative of a group of fishermen or processors can vote more freely on issues than can any of the people he or she represents. We are moving the Councils more to participation by paid representatives and state officials and losing the expertise that can be provided by individual, long-term fishermen and processors. This doesn't make any sense.

Individual Quotas—The Congress should lift the moratorium on individual quota programs and include language to enable processors to achieve equitable benefits—and bear equitable costs—in any program established. If there are guidelines that need to be created, they should provide flexibility among regions and fisheries. Any fees or other costs recovered should be returned to the fishery or region in which they were collected. Whether or not to establish an IQ program should be a decision made by a particular Council. Please note that under current NMFS interpretations of what constitutes an IQ, our cumulative trip limit management system would not be allowed. We need to provide flexibility for the Councils to develop management programs that work for their particular fisheries.

Overfishing/rebuilding process—Section 304(e) is a wonderful illustration of the old adage about the road to Hell being paved with good intentions—and here on the West Coast we are feeling the burn. First, consider how a stock is determined to be "overfished"—we use point estimates to gauge the status of stocks that may fluctuate widely and we have insufficient data to determine what that status is in reality. Take canary rockfish, an important—and "overfished"—species on the west coast. In 1999, the acceptable biological catch was 1,045 metric tons, a figure derived from a prior stock assessment. In 2000, the ABC is 356 metric tons, based on the most current stock assessment and the species has been designated as "overfished" under the guidelines established by the Sustainable Fisheries Act. I served on the review panel that examined the most recent stock assessment and there are no technical problems with the assessment itself; however, it does make a number of assumptions based on exceedingly sparse data. Nevertheless, we have to ask: did this species crash in the three year time period between assessments? If so, was the crash human caused or environmental? If the latter, can it be rebuilt absent another change in the environment? By using a single point—current biomass in relation to virgin biomass—are we looking at the true picture of this stock, which may fluctuate widely?

Second, are we considering the proper parameters? Overfishing designations are based on current biomass in relation to virgin biomass. The world has changed and is continuing to change. Carrying capacity of the ocean fluctuates. Can we even achieve a stock size above the "overfished" level given contemporary ocean conditions?

Third, once a stock is designated as "overfished" the Council has a relatively short period of time to come up with a rebuilding plan. Given the lack of resources—both human and fiscal—available to NMFS and the Council, especially in this region, all of our efforts will suddenly be directed to preparing rebuilding plans, thereby ignoring other needed science and management efforts. How many stocks suffer (or how many fishermen suffer) when all attention is focused on a handful of stocks?

Fourth, we need to "end" overfishing; not respond to it or address it, but end it. If overfishing is a result of long-term oceanographic changes that affect the basic productivity of the stock, how do we accomplish that objective?

Fifth, we have time frames that don't fit biology. Ten years might be a sufficient period when dealing with a fast growing, highly fecund gadoid whose biomass has been depleted by over-harvest, but it doesn't work for a slow growing, long lived rockfish with moderate fecundity that has been depleted by changes in ocean conditions. While there are exceptions for overfishing resulting from environmental changes, trying to convince anyone that Mother Nature caused the problem is extremely difficult, especially given our current state of knowledge.

Sixth, once we embark on a rebuilding program, we really have no way to monitor if we are doing right, doing wrong, or if the fish are just coming back by themselves. Do we prepare a new stock assessment and come up with a new point estimate?

Will we be going from famine to feast every three years? Or will we wind up ten years older with no more fish than we have now?

Last, but not least, how do we deal with mixed stock complexes, which is how most fish are caught? Does the overfished species become the tail wagging the dog? This year, the Pacific Fishery Management Council adopted most of a plan developed by the seafood industry which we think will allow fishermen to maintain access to healthy species while avoiding "overfished" species. This will require a significant investment by the industry in modified gear. But what if one of the other species becomes overfished as well—a possibility according to some scientists. Will we then have to close off large areas of the ocean, tie up boats, shut down processing plants, all to avoid two species? These are very real and very scary questions.

I realize that I have raised a number of questions and what you are looking for is answers. A group of us in the seafood industry from around the country have been working on those answers and we hope to have something for you in the near future.

Observers—Suggestions have been made that the Pacific Fishery Management Council be included in the North Pacific Fisheries Conservation language found in section 313 of the MSFCMA. While we recognize the noble intent in this proposal, as a practical matter section 313 was designed specifically for the North Pacific Fishery Management Council and simply including the Pacific Council would not work. As I mentioned above, we have a large open access fleet and a recreational fleet, both of which can have significant impacts on some species. Neither of these fleets are regulated or permitted by the MSFCMA; they fall under the jurisdiction of the several States. Thus, a change such as has been suggested would put the full burden of paying for and carrying observers on the limited entry trawl, hook-and-line, and pot fleets—the direct opposite of what the Congress tried to do when it enacted section 313 in its original form. If the intent is to try to find an equitable cost sharing method for paying for and carrying observers, new language would have to be developed.

Marine Protected Areas—While I realize that this subject will be addressed by a separate panel, I want to add a few thoughts of my own. WCSPA has testified in favor of looking at MPAs; one of our members served on a Council committee looking at MPAs and my deputy is currently a member of the Council's Marine Reserve Committee. MPAs are not a new concept; in fact, they are an extension of traditional time and area closures long supported by the seafood industry. However, they have their own set of issues. For example, we believe that the size and area of MPAs should be decided by the appropriate Council. Second, if an MPA is established, it should be a true MPA, closed to all fishing, and not just an excuse to allocate fish among industry sectors. Third, we need to deal with overlapping and conflicting jurisdictions. To give a worst case example, an MPA established 15 miles off the Olympic Peninsula here in Washington would have to untangle the jurisdiction of two countries (the U.S. and Canada, in the case of albacore), one Native American tribe (the Makah tribe), the Pacific Fishery Management Council, and three States (Washington, Oregon, and California, who regulate recreational fisheries and commercial fisheries for crab and shrimp through landings laws). How you would do that if the MPA is controversial boggles the mind. Less complicated but similar examples exist up and down the coast. I leave it to the next panel to determine if they have any answers.

Madame Chair, members of the Subcommittee, this concludes my testimony and I would be happy to answer any questions. I want to thank you for taking the time out of your busy schedules to visit our half of the world. I look forward to working with you and your staff in developing a re-authorization bill for the year 2000.

Senator SNOWE. Thank you.

Mr. Henkel.

STATEMENT OF TIM HENKEL, PRESIDENT, DEEP SEA FISHERMEN'S UNION OF THE PACIFIC

Mr. HENKEL. Good morning, Madam Chairman and members of the Committee. My name is Tim Henkel. I am a professional longline crewman. I have been a working fisherman for 22 years, and for the past 13 years I have been a crewman and relief skipper aboard the halibut schooner, *Masonic,* out of Seattle. I currently

hold the position of President of the Deep Sea Fishermen's Union of the Pacific.

I would first like to say that the Deep Sea Fishermen's Union strongly supports Mr. Alverson's view on the west coast groundfish management. I would like to address the individual fishing quota from a crewman's perspective.

Under the IFQ system, working conditions are much safer than during the frenzied derby days of the open access era. For example, when fishermen had to deal with extremely limited time constraints in effect, the 24-hour halibut openings, in order to be competitive, they were compelled to go out on the ocean in any kind of weather, with far too much gear aboard their vessel than it was designed to safely handle, leading to vessel instability. Today, I am relieved to say that this situation no longer occurs. Coast Guard rescues have been significantly reduced as a result of the IFQ management.

Under the previous open access system, the quality of the product often suffered due to the huge delivery gluts. It also created an adverse effect on prices paid to fishermen. Today, under the new IFQ system, the product quality has improved due to better handling. Combined with a reasonably safe supply and a growing fresh market, these changes have ultimately brought about better revenues to fishermen and have improved the quality of the product to the consumer.

From 1991 to 1994, incomes began to take a sharp decline, in great part due to an increase in the number of boats participating in the open access fishery; the proverbial slice of the pie was getting smaller for everyone. Had this phenomena continued, many crewmen feel they would have been forced to abandon the fishery in search of other employment, or continue as part-time longliners and try to establish themselves in one of the already overcrowded, depleted fisheries.

For the crewmen who have survived this change, the IFQ system has provided them a much more stable income. The halibut and sablefish resource is becoming healthier as a result of IFQ management. The Deep Sea Fishermen's Union is a professional crewmen's union, working under contract with the Fishing Vessel Owners Association since 1912. As far as we know, we are the only fishing crewmen's union in the United States.

During the open access years, our collective bargaining ability lay in our skills as highly efficient, productive and professional crewmen. This was essential to the fishing operation in order to compete for the resource. Under the privatized IFQ system, a professional crewman is desirable but not necessarily essential. Thus, our collective bargaining ability has been greatly diminished. Many crewmen believe that the acquisition of quota will become the future collective bargaining tool.

The Federal IFQ loan program, as mandated by the Magnuson-Stevens Act, has been an excellent vehicle for crewmen and small vessel owners to acquire fishing quota. And on behalf of a lot of crewmen, I would like to thank this Committee, Senator Stevens and Senator Gorton, Madam Chair, for that program. That program has been manna from heaven to crewmen.

I personally am a recipient of the loan program. The role of crewmen is moving away from the boots and oilskins mentality and into fully invested quota shareholders. Some of us have more invested in quota than the value of the vessels we work on. Unfortunately, the labor sector of the fishing industry still has no real voice in the decisionmaking and implementation process. It is my hope that in this hearing the Committee will consider this, and mandate the labor sector a voting seat on the North Pacific Fishery Management Council.

Thank you.

[The prepared statement of Mr. Henkel follows:]

PREPARED STATEMENT OF TIM HENKEL, PRESIDENT,
DEEP SEA FISHERMEN'S UNION OF THE PACIFIC

Deep Sea Fishermen's Union of the Pacific
5215 Ballard Avenue N.W.
Seattle, Washington 98107

January 10, 2000

The Honorable John McCain: Arizona
United States Senate
508 Dirksen Building
Washington, DC 20510

Re: U.S. Senate Committee on Commerce, Science and Transportation 2000, Magnuson/Stevens Reauthorization Hearing, January 14, 2000—Seattle, Washington

Senator McCain:

Individual Fishing Quota System 1995–2000; A Crewman's Perspective

Under the I.F.Q. system, working conditions are much safer than during the frenzied "Derby Days" of the open access-fishing era, For example, when fishermen had to deal with extremely limited time constraints e.g., twenty-four hour halibut openings, in order to be competitive, they were compelled to go out on the ocean in any kind of weather with far too much gear aboard than the vessel was designed to safely handle, leading to vessel instability. Today I'm relieved to say that this situation no longer occurs. Coast Guard rescues have been significantly reduced as a result of I.F.Q. management. Under the previous open access system, the quality of the product often suffered due to huge delivery gluts that also created an adverse effect on prices paid to fishermen. Today under the new I.F.Q. system the product quality has improved due to better handling. Combined with a reasonably steady supply and a growing "fresh market" these changes have ultimately brought about better revenues to fishermen and have improved the quality of the product to the consumer.

From 1991 to 1994, incomes began to take a sharp decline in great part due to an increase in the number of boats participating in the open access fishery. The proverbial "slice of the pie" was getting smaller for everyone. Had this phenomenon continued, many crewmen feel they would have been forced to abandon the fishery in search of other employment or continue as part-time longliners and try to establish themselves in one of rite other already overcrowded and depleted fisheries. For the crewmen who have survived this change, the I.F.Q. system has provided them a much more stable income.

The halibut and sablefish resource is becoming healthier as a result of I.F.Q. management. We're not experiencing the lost gear deadloss of the "derby days". Releasing sub-legal halibut unharmed is much easier now because the fishermen are not forced to haul gear at unsafe breakneck speeds. Environmentally the program all but eliminated discards of bycatch, increased the focus on stock assessment and even allowed us the freedom to develop an in-season survey for bird-bycatch reduction. (An impossibility under an open access or license limitation scheme.)

From a labor standpoint, there are a few backlashes. Jobs have been cut, but many believe it had to happen. Now we have a smaller more professional fleet instead of a hugely overcrowded part-time fleet.

The Deep Sea Fishermen's Union is a professional crewmen's union working under a contract with the Fishing Vessel Owner's Association since 1912. As far as I know, we are the only fishing crewmen's union in the U.S. During the open access

years, our collective bargaining ability lay in our skills as highly efficient, productive and professional crewmen. This was essential to the fishing operation in order to compete for the resource. Under the privatized I.F.Q. system, a professional crewman is desirable but not necessarily essential. Thus our collective bargaining ability has been diminished greatly. Many crewmen believe that the acquisition of quota will become the future collective bargaining tool. The Federal I.F.Q. Loan Program, as mandated by the Magnuson Act, has been an excellent vehicle for crewmen and small vessel owners to acquire fishing quota. I personally am a recipient of the loan program. The role of crewmen is moving away from the "boots and oilskins" mentality into fully invested quota shareholders. Some of us have more invested in quota than the value of the vessels we work on. Unfortunately, the labor sector of the fishing industry still has no real voice in the decision making and implementation process. It is my hope that in this hearing the Committee will consider this and mandate the labor sector a voting seat on the North Pacific Fishery Management Council.

Thank you for inviting my comments on this issue.

Respectfully,

Tim Henkel
President
Deep Sea Fishermen's Union of the Pacific

Senator SNOWE. Thank you, Mr. Henkel. I want to thank all of you for your very important testimony.

Let me begin with the scientific data, because you all mention it in your testimony. Do you think that if we had adequate resources to collect the data necessary to make decisions at the regional and Federal level, the credibility of the decisions would be enhanced?

I know my fishermen at home in Maine often question whatever decision comes out of the agency. How can we restore the credibility of the National Marine Fisheries Service when people have so many doubts about it?

For example, when NMFS says that the status of 75–80 percent of fish stocks is unknown, it emphasizes the negative results of fisheries management. Would better data be enough to restore credibility to the agency?

On the one hand, the status of certain stocks is unknown. That raises questions with not only the fishermen, but also with environmental groups and others who are concerned about conservation. So we get it at both ends. Would this cure the problem?

Mr. Moore.

Mr. MOORE. Senator, I do not think it would completely solve the problem, because people are always going to be skeptics. It would certainly help. I think once you have the resources to more adequately assess the stocks out there, to provide money for surveys and so forth, that then gives the Federal and State agencies more flexibility to work with the industry. And once the industry, both the fishermen and the processors, are brought into the process of conducting research and analyzing research, that, in and of itself, helps out with the credibility.

But you need that financial base to start with, to provide the basic data and the basic tools. We in the industry are doing some of that ourselves.

Bob, I think your group was working on some sablefish research at one time. I know Ralph and I have worked on some things.

Our Council has developed a stock assessment review process, sort of a peer review of the data, which deliberately involves somebody from the groundfish advisory panel, which is the industry and

public panel, as part of the review. That helps create the credibility. But the tools for doing all of those things are very limited.

Now, we all hate to say it. We all hate to come up here and beg you for money. But that is part of the problem, is trying to get the people and the tools we need to get the better data.

Senator SNOWE. Mr. Brown, you are on the Council. What is your perspective?

Mr. BROWN. Thank you. I have spent an awful lot of time at stock assessment meetings. Probably, of the fishermen on the coast, I may have spent more time than any others. So I am fairly familiar with the science and the science needs.

And it would certainly help an awful lot if we had adequate data. It is very frustrating to go to a stock assessment meeting, and review panel meeting, and hear the stock assessment authors say, on something like short-spine thornyheads, "well, we know they live somewhere between 60 and 160 years." It makes a big difference in the mortality. Mortality directly relates to the amount that you harvest every year. But in order to do a stock assessment, we have to pick something. And so it gets picked.

It is very distressing, in the same stock assessment, to hear, well, we are not exactly sure what the catch was because, until 1994, we landed thornyheads as thornyheads rather than as short-spine and long-spine thornyheads. They were not separated. So we have really no way to know what the catch of short-spine thornyheads specifically was, prior to about 1994.

And so we have developed a formula that we will apply to the catch information to give us that number. Unfortunately it, of course, has to include a number of assumptions that the modeler is making, that frankly I do not think were adequate. We got into a bit of an argument about it. But, again, she did what she had to do. She had to have catch.

There were three or four different growth curves that were presented. They were not tremendously different, but they were some different. She had to use one of them. She could not use all four.

I am trying to see if there was another factor. I cannot remember what it was now. The recruitment is absolutely unknown, and so they fixed it at 10 million fish, because we have to have something. And at that point, you start wondering what exactly did we assess here, when we have basically assumed all of the parameters. And yet, that stock assessment is driving the management of most of our deep water species. It is very difficult to stay chipper about all the processes with that kind of information flow.

So it would help an awful lot. Because I think then, when we do go to the stock assessment meetings, we would have at least some confidence that the information going into the stock assessment had some basis other than an assumption based by the modeler.

Senator SNOWE. Mr. Alverson.

Mr. ALVERSON. Thank you, Madam Chairman.

I think the short answer to your question, Madam Chairman, is yes, it would go a long ways. To be more specific, the current survey, the current tri-annual survey, may adequately survey maybe 30 of the 84 species that we have to manage. There are a number of species that we have very little or no data base on that are driving a lot of our management.

The science of how to fund this is a concern. I did hear a comment about these new vessels that the National Marine Fisheries Service is supposed to get. And I do not necessarily want to get sideways with the Service, but ever since my dad was director of the Service, I have been sideways with the Service.

[Laughter.]

But those boats, we are told, are $40 million a copy. I do not know if that is accurate, but that is what we heard. And if I had that $40 million and I put it in a U.S. 30-year T bill at six percent, that is $2.4 million. And we could do one hell of a lot with $2.4 million annually out here.

The other aspect to that, in terms of money—and I would caution Congress that—and again, I do not want to get sideways with the Service—but if you allocate funds, we need on-the-water activity, We do not need people behind a desk, from my perspective—where those funds go. Our Association has been greatly concerned for the last decade and a half with management. We have testified many times to the Pacific Council that we thought there was a decline taking place in the different resources.

What is driving a lot of the reductions now, that the Council has to vote on, is a change in science. The best available science has changed in the last three to four years. The best available science prior to three or four years ago, with all the wonderful population dynamics, the people we have up and down the coast and our SSC peer reviewing all of this, suggested a rockfish species could be harvested at what they call an F–35 rate.

That has now changed. And it began to change three or four years ago. And it is suggested that they should have been harvested over the last 20 years at an F–45 and perhaps an F–65 rate. That means our long-term harvest policies over the last 20 years have been anywhere from 30 to 50 to 60 percent higher than what the resources could naturally reproduce themselves at.

So that is part of the science and part of the picture. And again, the short answer is yes, but with the qualifications that I made.

Senator SNOWE. You are saying that there would be a better use of the money than putting it into more vessels. My staff said that it costs $50 million per vessel.

Mr. ALVERSON. Per copy?

Senator SNOWE. Yes.

Mr. ALVERSON. Well, that is $3 million a year at six percent.

[Laughter.]

Thank you.

Senator SNOWE. Yes, Mr. Brown, did you have something to add?

Mr. BROWN. Yes, please. I am sorry to interrupt here.

We keep talking about the amount of surveys, and we talk about the tri-annual survey occurring once every three years. I should point out that that tri-annual survey does not go inside of about 200 feet of water, and we have never had a survey inside or south of Point Conception. And yet, as one of our overfished species, lingcod, a major portion of the stock—and we of course do not know how much—lives inside of 200 feet of water.

Another one of our overfished species, bocaccio rockfish, it is primarily south of Point Conception, where we have never had a survey, and the juveniles live inside of 200 feet of water. For one of

the species that was recently listed as overfished, cow cod, the area of concern is south of Point Conception, where we have never had a survey.

Senator SNOWE. Mr. Henkel, you mentioned in your testimony that IFQ's have worked very well and improved the health and safety of the crewmen on board the vessels. Do you think that IFQ's have in any way consolidated the industry in favor of larger vessels? One of the legitimate concerns is that IFQ's will result in a few large operations dominating the industry, overtaking the smaller-sized, traditional, family-run vessels.

Mr. HENKEL. Madam Chairman, I think consolidation has occurred. I think that is a fact of life under the system. But you have to compare it back to the old open access days. It was completely overcrowded. People have a tendency to focus on that consolidation aspect. But I walk the docks, and I have not talked to a single working fishermen who wants to go back to the dark ages of open access.

And from a crewman's perspective, yes, we have—I actually compiled a list—I do not know if I have it with me—of vessels that have dropped out and of crewmen that have been laid off. However, a phenomena I see occurring here is small groups of crewmen, twos and threes and fives, are acquiring quota. And they are going out in little groups and they are approaching a skipper and they are making trips. And this phenomena is just kind of now getting underway.

It took a long time for us to get over the initial shock, and there was this collective resentment about allocation. And in my opinion, this is sort of a little sleeping giant starting to wake up. And I think, in terms of the committed fishermen, who are in for the long haul, there is going to be a leveling of the playing field. I think a new paradigm of crew employment and crew to skipper and vessel balance will be—the new generation of crewmen after the initial key people start retiring and whatnot, it is sort of leaning toward groups of crewmen with quota, uninvested participants I believe—this is more my opinion, but it seems to be the trend—are going to become more of a thing of the past.

It is interesting now, where you have to step up to the plate and invest. And the guys I know and work with do not have any problem with that. We do have a small problem with competing with larger entities with financial leverage. However, I thought that an idea like a capital construction fund for crewmen that could be applied toward the acquisition of quota would be an excellent vehicle.

This system, it is interesting, it is beginning to work. I think it needs some more time. And you hear a lot of stuff but, all in all, I think it is just beginning to take off. And we are pretty happy with it.

Senator SNOWE. What gives the crewmen incentives under IFQ's?

Mr. HENKEL. Well, for instance, one of the arrangements we have on the vessel I work on, if the crewmen go out and buy quota, we can come on to the—you have to pay for that quota, obviously, and it is quite expensive, so one has to charge a fee for the use of that quota. We are talking about a second generation quota as opposed to—the Vessel Owners Association, that we have a contract with, some of them have allocated quota, which they do not charge us

for. But if quota is purchased, then we have an agreement that we can charge to pay back that purchase.

So when crewmen get together and buy quota, they can charge enough to make that quota pay for itself. And over a period of time, that snowballs. And where the traditional boat share/crew share split used to occur, the acquisition of quota is sort of bringing that back into balance, you might say. I do not know if you are following that.

Senator SNOWE. Yes, I do. It is a very interesting perspective. It is an interesting observation. Thank you.

Senator Gorton.

Senator GORTON. Bob, if the participants in the west coast sablefish management program had the same eight-month season that North Pacific does, what would be the dynamics or the benefit?

Mr. ALVERSON. The initial dynamics is that our insurance costs would go down, because of the intensity and the high risk of the current derby that we are forced into.

Senator GORTON. You mean it would be safer?

Mr. ALVERSON. It would be safer. It would be definitely safer.

The dynamic of the W.C. fishery is that most of the boats are involved in two or three fisheries. There is a complaint constantly at the Pacific Council that that August 15th date unfairly penalizes albacore fishermen, because that is when they tend to school along the west coast. And some of those people are hook and line sablefish fishermen. So it will allow them to participate in May or June, catch their black cod, as opposed to be force fitted into one-season-fits-all. And it would allow the fishermen either to go do their other things and better organize their fishery.

These trip limits that we have been allocated were based on an overpopulated industry to begin with. So they do not reflect what they used to 10 or 20 years ago, where someone might actually fish for five months off the coast. These are basically, at the most, a 15-day trip, which is what they have been reduced to. Some of the number one tiers might take two or three weeks to catch, if you have the proper amount of time.

The other dynamic is the Pacific Council would like the ability to stack these. And there would have to be a limit of how many you could stack. But the idea of stacking is employed in Chatham Strait, in Alaska, on their black cod fishery, and in their Clarence Strait fishery on black cod. And that allows a fishermen or a crewman to own one of these and go on another boat that already has a quota. And that would reduce the amount of boats and gear in the water and help reduce the overcapitalization that we have. So that the boats could get back, and the crews, to the historical income base and harvest base that they used to have.

I think that the trading of these quotas, if they had eight months to fish—they are called an IQ under the current law—but the trading of them would take place very similar to what goes on in Alaska, on their IFQ and their Chatham Strait black cod fisheries.

Senator GORTON. Thank you.

Mr. Moore, I understand, and I hope I am correct on that understanding, that you are a strong supporter of a $4 million observer program for the west coast cod fish fisheries. The President and the

Senate came up with $2 million. The House zero. Is $2 million better than zero?

Mr. MOORE. I would say $2 million is certainly better than zero. $1 million is better than zero.

I think, Senator, that what we need to do in all of the research-oriented sorts of things, whether it be observer coverage, whether it be money for trawl surveys, whether it be more for scientists to conduct stock assessments and so forth and so on, we need to look at whatever pot of money you in your infinite wisdom and capabilities can get available for groundfish and figure out what we can do with that pot of money, and set priorities based on where the needs are.

Senator GORTON. Okay. You are also critical of the National Marine Fisheries Service and its research program. Is that primarily because it does not have enough money, or do you think it is not prioritizing right with what it does spend on research?

Mr. MOORE. Well, I hate to wave a red flag in front of anybody, but I sort of have to echo Phil Anderson's comments, from the previous panel. When you look at the huge amount of money that is spent on salmon on this coast and the economic returns from the salmon fishery to the west coast, then you look at the paltry sum that is spent on groundfish and what have been huge economic returns from groundfish, there is an imbalance there. There needs to be some shifting of priorities in terms of allocation of money.

Senator GORTON. You need an Endangered Species listing.

Mr. MOORE. Well, I have thought about that, Senator.

[Laughter.]

The problem is, when you are dealing with a fishery that is 150 miles out in the ocean, the only people who get shut down by the endangered fishery listing are Ralph and Bob and my processors, so it does not do any good.

Senator GORTON. Thank you.

Thank you, Madam Chair.

Senator SNOWE. Thank you, Senator Gorton.

Senator Stevens.

Senator STEVENS. Madam Chairman, I do not want to be a bastard at the family reunion, but I want to have a little reading here and make sure that I get the views of our friends about IFQ's. The National Research Council did give us its report. And in the executive summary they said categorically: 'Congress should lift the moratorium on the development and implementation of the IFQ programs established by the Sustainable Fisheries Act.'

But they also pointed out that the Magnuson-Stevens Act defines an IFQ as a Federal permit under a limited access system to harvest a quantity of fish expressed by a unit or units representing a percentage of the total allowable catch that may be received or held for the exclusive use by a person. No argument so far, I assume.

But then it says: 'Congress should permit, one, the assessment of fees on initial allocations of quota and first sale and leasing of it, imposition of an annual tax on quota shares, zero revenue auctions.' The Magnuson-Stevens Act presently imposes limits on various fees that may be used to recover the cost of IFQ management enforcement. The Congress should increase these limits so that the

IFQ management and other forms of limited entry can be recovered fully.

Additionally, revenues extracted from IFQ fisheries should be used to mitigate some of the potential negative impacts of IFQ's and support research. Now I am going to start to eliminate some of this and not read all that is in this section. The committee recommends the Magnuson-Stevens Act be amended to allow the public to capture some of the windfall gain generated from initial allocation of quotas, to recover incremental costs of IFQ management authorized by the collection of fees from the transfer and holding of IFQ's.

It has a whole series of other things of what the Congress should do. And then it has a whole series of things about what the Secretary of Commerce and the National Marine Fisheries Service should do. It also requests that the Council should consider including fishing communities in initial allocation of IFQ's.

It has a new concept of rents. And it says: Councils should avoid taking for granted the gifting of quota shares to participants in the fishery, just as they should avoid taking for granted that vessel owners should be the only recipients of quota, and historical participation should be the only measure for determining initial allocations. There is a whole set of things that they say both the Congress should do and that Congress should authorize the Council to do.

Now, I take it that there is a general feeling that the moratorium should be lifted. What do you think about the advice they give us as to what the Council should do, the Secretary should do and the Congress should do as we lift the moratorium?

Mr. Alverson.

Mr. ALVERSON. Madam Chair, Senator Stevens, I thank you for the opportunity to comment on those specific issues. With regards to the fees, we negotiated significantly with the Senate, yourself and Senator Gorton on the fees that applied to our IFQ program up north. And we do not object to that. It is a little bit tough being the only fishery in the United States that pays for itself. But we got a big benefit out of that. And it is being managed very well.

So if we had an IFQ auction in the Pacific Council, we would not object to the fee. It does drive an issue on natural resources issues in general. The broadcasting systems are public. Should they pay three percent of gross? New taxes on the west coast, when Senator Hollings and Senator Breaux and Senator Inouye's people do not pay fees? Our President says we have a $3 trillion surplus. We need this money for research, but Congress needs to set some priorities.

You mentioned the inland Senators would like that money to go for their wind storms. But we have got La Nina and El Nino that maybe some of the surpluses ought to go to from Congress.

So the fee issue, there is a lot of things to be talked about on fees. But we will take our fees. We note that the East Coast quahog got out of the fee program. I think it is inappropriate for the west coast to be the only ones paying fees.

With regards to the National Academy of Sciences recommendations, the 1996 amendments on limited entry, in general, require a whole litany of hoops to jump through for a Council. Many of

those are applicable to the IFQ program. And many of them are applicable to the National Academy of Sciences recommendations.

I think the National Academy of Sciences asked that the hard decisions on all those issues, of whether the crew people are involved, whether the boat owners get the lion's share, the issues of community development, should reside with the regional Councils, because every region has a different political situation and different economic makeup. And we would agree with the Academy's recommendation, though those should probably be delineated and lined out for the Councils, to make sure they go through those hoops by Congress.

That concludes my comments, Madam Chairman.

Senator STEVENS. Mr. Brown.

Mr. BROWN. Thank you. I hesitate to say this with my back to the crowd, but I have always felt that when privileges were extended for use of a resource, that it was not unreasonable to also expect that the user accept some responsibilities for the use of that resource. Therefore, certain fees probably are reasonable.

As you know, on this coast we had a proposal for an industry funded buyback program to try to reduce our capacity. That was our way of trying to use our money to make our situation better. It took a long time to get the enabling legislation and, unfortunately, we ran out of time before we could get that. Although I think we are looking at it again.

We have had proposals in the past to try to fund our own research organizations. We have had a difficult time trying to figure out how to collect those funds from everyone under the existing mechanisms. When we actually went to Congress, the Senate, to try to get the enabling legislation to allow for the buyback, what we actually started with was a program that was similar to what States use when they have special service districts, recreational districts, library districts, where groups of fishermen could vote among themselves to tax themselves to use the money for the common benefit of the industry.

And the things that we were thinking about were things like research, primarily research, but we wanted it broad enough that you could actually use it for other things that might come up, whatever that might be. We did not get that far. We did get the buyback language, fortunately.

So, the bottom line—I think reasonable fees are acceptable. And one thing I would say is that if we are going to make major changes in the structure of the industry, we need to get them over with so that the industry can adjust to them and get on with business. One of the hardest things to deal with right now on this coast is the fact that nothing is ever stable long enough for the industry to adjust to. That may be more difficult than the actual magnitude of the cuts, the fact that we do not know if they are done. We did not see them coming. And we are never given time to adjust.

So if we are going to do a fee structure, if we are going to do marine reserves, if we are going to do those sorts of things, let us get them done so that the industry can adjust to them and we can stabilize.

Senator STEVENS. I do not think either you or Mr. Alverson commented upon the windfall gain and rent proposal. They say that we

should allow the public to capture some of the windfall gain generated from the initial allocation of quotas and recover the incremental costs by the collection of fees from the transfers, and we should also consider the concept of rents, to pay an annual fee for the utilization of the quota.

Mr. ALVERSON. Mr. Chairman, our three percent fee, I consider that to be a rent. Whether it is three percent or a fixed amount per individual, we are going to be paying a rent of three percent, equivalent to a B&O tax that the States assign, only the States assign about a one percent B&O tax.

But I am not sure, beyond that, if these largely bureaucrats who make up the National Academy of Sciences, whether they are trying to feather their nest, too, off our back. What is fair?

We pay three percent. We will be paying a three percent Federal tax. We pay a 3.3 percent State tax to the State of Alaska when we offload. We pay an additional two percent to most of the State of Alaska for what they call a village tax or something like that. We have a CDQ that takes five percent of our gross.

When you add all these taxes that we currently pay, that five percent and the three percent add up to eight percent out of our gross that currently go to domestic programs in our IFQ program for halibut.

Senator STEVENS. That is the existing IFQ.

Mr. ALVERSON. Right.

Senator STEVENS. Do not you think these Council recommendations go further than that now?

Mr. ALVERSON. Say again?

Senator STEVENS. Do not you believe that the recommendations of this Council go further than the existing IFQ?

Mr. ALVERSON. Well, they are looking at future IFQ, surely. And I believe a rent should be assessed.

Senator STEVENS. But we do not have a windfall gain concept.

Mr. ALVERSON. Sure, you do. You people in Congress have a windfall tax program. When we sell out, we have to pay windfall tax or you pay a corporate tax to the Federal Government when you sell out.

Senator STEVENS. But they are not talking about that.

Mr. ALVERSON. I know they are not talking about that. They are talking about a new tax.

Senator STEVENS. Right.

Mr. ALVERSON. But you fellows have a tax. When we sell out and retire, we pay a tax on the gain.

Senator STEVENS. That is not a windfall tax. That is just income tax. You are talking about the income tax on the increase in the value of your assets.

Mr. ALVERSON. It is all money out of our pockets, Senator.

Senator STEVENS. I understand. But I am trying to get your idea. When you look me in the eye and say, I want you to lift that IFQ moratorium, I want you to understand that Congress has been told a whole series of criteria that ought to be put into effect as that is done.

Mr. ALVERSON. Okay.

Senator STEVENS. It is not a simple matter to get this thing done with that report. And we have got until what, December to do it?

Senator SNOWE. October.

Senator STEVENS. October to do it.

Senator GORTON. And they want to know whether we are going to do it by April.

Senator SNOWE. That is right.

Senator STEVENS. And you wanted to know if we were going to do it by April. And I want to know by April whether you agree with what they recommend. Because if you are in agreement with them, we can get it done fast.

Mr. ALVERSON. Well, what are the numbers? What are the tax numbers we are talking about? If they are similar to what you already have in there, a three percent fee—I think there was at one time a one percent of your——

Senator STEVENS. I do not happen to agree with them. I am the author of the limits in the existing language.

Mr. ALVERSON. I know you are. And we are thankful of that.

[Laughter.]

Senator STEVENS. Mr. Moore.

Mr. MOORE. Thank you, Senator.

Looking at it from the processors' perspective, first of all, in terms of lifting the individual quota moratorium, obviously we are in favor of it. It is something that the vessels need. We think that there needs to be some sort of accommodation.

Senator STEVENS. Should it apply only to limited entry fisheries?

Mr. MOORE. Well, on this coast—and I just want to limit myself to that, if I can—we really have two limited entry fisheries and then sort of a mixture of open access.

Senator STEVENS. Rod, tell me, should it be limited? Because existing law currently limits IFQ's to limited entry fisheries.

Mr. MOORE. That is correct.

Senator STEVENS. It means we have got to amend two acts if we are going to lift this moratorium and do what they say.

Mr. MOORE. I think you would probably wind up having to do one all-encompassing thing, something similar to what you and Senator Gorton did with the American Fisheries Act, if you will, where you tried to solve a number of problems in one major piece of legislation.

Senator STEVENS. And we did that primarily by consensus.

Mr. MOORE. Yes, sir, you did. I think that perhaps the same sort of approach needs to be done with IQ's. And then, as Bob and Ralph have both said, kind of leave to the Councils what some of the mechanics are for particular fisheries. There may be fisheries that are not appropriate for individual quotas and maybe should never be under them.

Senator STEVENS. That is the criteria that they want us to spell out when they are appropriate.

Mr. MOORE. That is something, Senator, that I cannot see how you can do. With everything that you have to deal with on your plate, how you can figure out which fishery, some small, podunk fishery in California or Oregon——

Senator STEVENS. Well, that is why we are here. What are the criteria that you would approve?

Mr. MOORE. I would have to sit down and give you a laundry list. It is not something I could do off the top of my head.

Senator STEVENS. That is what I am afraid of, a laundry list.

Mr. MOORE. I know. Nobody likes them.

Senator STEVENS. Let me move on. I do not want to take too much of my time.

Mr. Henkel, have you got any comments about this? You were for IFQ's. Are you for all these things the Council wants to put on?

Mr. HENKEL. Senator Stevens, I look at it this way. I have to speak from a labor aspect. If labor had a real voice in the decision-making and implementation process of the fisheries, not just halibut and sablefish in the longline fishery but North Pacific fisheries, and we had some sort of a leg up in terms of a capital construction fund or something like that—not money given to us, but just a leg up so we can work; we will pay our own way—if you want to give us a leg up like that, we will fund that loan program. You bet, we will pay tax. If you give us a chance to get into some IFQ, we will gladly pay the tax on it.

Senator STEVENS. My last comment and question would be this. I mentioned the opilio crab crash. We have obviously got to do something about that disaster. Last night it was suggested to me that we allow using the capital construction fund for the vessels involved, on a pool basis, to become a matching fund to Federal moneys, to bring about a buyback, to immediately institute a buyback.

What do you all think about using the capital construction fund in that manner?

Bob.

Mr. ALVERSON. Madam Chairman, Senator Stevens, I do not represent the crab guys. I did negotiate prices for them. And I know that they have a horrible situation of overcapitalization. I think that that option should be provided to them. I think it is innovative. There is always a problem and question of, is everybody paying in the same amount?

Senator STEVENS. Well, they will have to work that out.

Mr. ALVERSON. I am not quite sure how a buyback would work.

Senator STEVENS. They would have to work that out. Probably three votes to pool our funds and one of them comes out.

Mr. ALVERSON. Yes. I think that there is something there that could be worked out.

Senator STEVENS. Does anyone disagree?

Rod.

Mr. MOORE. Senator, I do not disagree. I would like to add to that, though. We have a situation with the capital construction fund, where some of the committees in the House and Senate have tried to get rid of it for years. It is now being discussed in sort of the world forum that subsidies are bad and capital construction funds are a subsidy.

One of the problems that faces fishermen on this coast when they try to get out of the fisheries, because they are just not making any money, is they cannot do anything with their boat because they have got the profits tied up in a capital construction fund. And the tax penalties for coming out of that fund are so huge, they cannot afford to get out.

It seems to me that some general revision of the capital construction fund ought to be looked at. Allow a fisherman who is retiring from the fishery to turn it into a Roth IRA or to an education ac-

count for his kids or use it for buyback or use it for safety. Do not limit it to simply constructing and reconstructing vessels, and thereby increasing the capacity problems that we have. Let people be flexible in using that capital construction fund if they are going to be getting out of the fishery.

Senator STEVENS. Mr. Brown.

Mr. BROWN. Thank you. I was a member of the Federal investment task force that looked at Federal subsidies and the role of the Federal Government in capitalization of the fleet. And I believe one of the recommendations that we came out with would be that the capital construction fund be used in such a manner. If I remember correctly, and it has been a while since I reviewed any of the information, there was about $250 million tied up in capital construction funds through the country for the fishing portion, not dealing with merchant marines, and the bulk of that money was on the west coast.

When we have fisheries that are severely overcapitalized, as we do, anything that we can do to use those kinds of resources to help decapitalize the fleet rather than increase capitalization seems to be appropriate. I would take it a step further, also. That on this coast, I do not know how much money we have tied up in capital construction funds for the groundfish fishery, but one of the ideas that we have had would be that we use the same concept that we had in our buyback program—a fee on landings for people who stay in the fishery—as part of a match for some portion of a buyback program that we would assess future participants.

Thank you.

Senator STEVENS. Thank you.

Madam Chair, I think we ought to ask GAO to tell us how much money is in those funds right now. They are part of a financing package that make it possible to deal with disasters. Thank you very much.

Senator SNOWE. That is a good suggestion. Thank you, Senator Stevens.

Mr. Moore, I just have one question. You suggested in your testimony that we should reexamine the term "overfishing," because it is used as an all encompassing description, regardless of the source of the problem, that is attributed to a declining stock. You suggest using the term "distressed fishery" instead. How would that help in rebuilding the stock? Is it a perception issue?

Mr. MOORE. There are two aspects. One is the perception issue. Just to give you an example, I had a conversation with somebody in the National Marine Fisheries Service who, to protect their identity, I will not name them, and to protect their job, I will not name them. They were working on some disaster relief things for the west coast and other areas and were talking to the attorneys in the National Oceanic and Atmospheric Administration about the need for disaster relief.

And the attorneys said, "but the west coast stocks are overfished, and so therefore there is no need for any disaster relief." At which point, the folks from NMFS tried to point out that, in some cases, it is not the fact that fishermen caught too many fish, it is that the environment changed, it drove down the stock, and so forth and so

on. And the attorneys came back with, "but no, but they are overfished."

So partially it is a perception problem. People, when they hear overfished, think it is the fishermen's fault, no matter what. I think as Ralph said in his written testimony, if a river dries up and all the salmon disappear, those salmon are overfished and it is the fishermen's fault.

The other issue is if you do want to differentiate in rebuilding plans between fisheries that are distressed—and I will use my favorite term—as a result of environmental conditions versus fisheries that are distressed because we did something wrong, there may be a need to look at different sorts of rebuilding plans. Because, in the one case, you can control the wrongdoers, and that is us; in the other case, there is not much you can do about the wrongdoer, because that is Mother Nature. So there is a dichotomy there that you may want to look at as well.

Senator SNOWE. That is a very good suggestion.

Thank you. Thank you all very much. Excellent testimony.

The third and final panel will include: Dr. Rod Fujita, a Senior Scientist with Environmental Defense; Dr. Dave Sampson, a Professor of Fisheries at Oregon State University; Mr. Pete Leipzig, of the Fishermen's Marketing Association; and Sam Anderson, Executive Director of the Master Builders Association of King and Snohomish Counties.

[Pause.]

We will begin with you, Dr. Fujita.

STATEMENT OF ROD FUJITA, SENIOR SCIENTIST, ENVIRONMENTAL DEFENSE

Dr. FUJITA. Thank you, Madam Chair, members of the Subcommittee. My name is Rod Fujita. I hold a doctorate in marine ecology and I am a Senior Scientist with Environmental Defense, formally known as the Environmental Defense Fund. Environmental Defense is a leading national environmental group, with over 300,000 members nationwide. We are also a member of the Marine Fish Conservation Network, and fully support the Network's agenda for reauthorization. Thanks for this opportunity to comment.

I will focus my remarks on two fundamental problems we face today in fisheries management. One is the depletion of stocks. And the second is the degradation of fish habitat. There are three causes, in my view. The first is that managers must rely on insufficient data and on a rather poor understanding of marine ecosystems, quite apart from the lack of data.

Second, most of the management systems currently in place create strong incentives for waste and over-exploitation of fisheries. And third, many of the habitats that support fisheries are being seriously degraded as a result of poor coordination amongst agencies and a real lack of focus on the importance of protecting fish habitat.

Let us discuss the science first. It has garnered a lot of attention on the panel so far. One reason that fisheries science is in the state it is in is that good science is expensive and funds are really limited. But it is also important to realize that marine science is very

difficult to do under the best of circumstances. It is kind of like asking a bunch of forest scientists to study a forest by sending them out to stumble around at night with some butterfly nets. More data will certainly help, but the ocean is intrinsically variable and uncertainty will always be with us.

Given the high levels of uncertainty that almost everyone complains about, one would think that management would proceed cautiously, like a driver in the Seattle drizzle. The definition of optimum yield and other provisions in the Act are aimed at implementing a precautionary approach which calls for managers to err on the side of the fish populations, given this uncertainty. Yet the opposite occurs much too often.

In fact, a double standard prevails. Little or no data are needed to keep fishing, but large amounts of high-quality data seem to be necessary to justify precautionary catch levels or other conservation measures. The result has been an overaggressive catch policy for west coast groundfish and other species, even with the strong conservation provisions of the 1996 amendments.

Many complain that the science does not support the recent reduced catch limits for rockfish populations and other groundfish. But does the science support the status quo? Not in my view.

What is the solution? Well, more funding for fishery science should certainly help. But it is also critical to strengthen the implementation of the precautionary principle in the face of uncertainty, which will remain with us as long as the ocean remains mysterious.

The real tragedy here is that the decline of the groundfish, whatever caused it, could have been prevented. Many scientists, environmentalists and some managers, such as Phil Anderson, Bob Alverson, and other members of the Pacific Council, were warning years ago that rockfish and other species could not sustain the high catch levels that they were being subjected to. However, these warnings were largely ignored. And I think one powerful reason for this lies in the management regime itself.

Most fishery management regimes create very strong incentives to over-exploit fish populations and to waste large amounts of fish and other marine resources. Open access management clearly creates incentives for a fisheries arms race and over-investment, leading to debt and calls for ever-larger catches to forestall short-term economic disaster.

Many advocate limited entry as a solution. But limited entry also has an abysmal record. They are often implemented very late in the game, when fleets are already overcapitalized. And due to political pressure at that time, often, too many permits are granted. And because fishers do not get reliable assurances that they can catch a certain amount of the allowable catch, fishing actually increases in many limited access programs, according to the scientific literature on this topic.

This is true even when input controls are used, due to the ingenuity of fishermen in getting around such controls. Now, in the west coast groundfish fisheries, declining fish abundance has required drastic cuts in catch quotas and progressively smaller trip limits, to which the people on the previous panel alluded. Because the number of vessels is much higher than the number required to

catch the available fish profitably, the low quotas and trip limits threaten the economic viability of many fishers.

Moreover, many fishermen have told me that the low trip limits induce discards—waste—as fishermen try to maximize the value of the small loads that they are allowed to land by throwing back the lower value fish. The Pacific Council determined that Individual Transferable Quotas, or ITQ's, showed a lot of promise after years of consensus building, for the sablefish fishery. But, as you have heard, their hands have been tied by the ITQ moratorium.

In contrast to open access and most limited access management regimes, almost all individual transferable quota programs that have been implemented around the world have ended the race for fish and reduced overcapitalization. Those are very robust results.

Five of the six ITQ programs reviewed in the National Academy report ended the race for fish. Moreover, ITQ's have an excellent conservation record, which is why Environmental Defense has taken a stand on this. Most ITQ's have improved compliance with catch limits, which is the major conservation tool that fishery managers have at their disposal.

The best picture of how U.S. ITQ programs can operate can probably be obtained by looking at the performance of the Alaska sablefish and halibut ITQ program, because it is really the only ITQ program in the world that incorporates the latest thinking about how to design ITQ programs, much of which is reflected in the NRC committee report. The Alaska program has performed admirably. It has ended the race for fish. It has improved product flow. It has improved prices. It has reduced bycatch and ghost fishing by about 80 percent, according to the NRC, and improved safety, as you have heard.

And it has done all this while improving compliance with overall catch limits. I am not aware of any excessive consolidation or corporatization of the fleet resulting from these ITQ's.

Environmental Defense recommends, along with the NRC, that moratorium on ITQ's be lifted. We also suggest that guidelines for preventing adverse social or economic impacts that can occur due to the free reign of market forces be adopted and, in addition, guidelines for promoting the strong conservation benefits of ITQ's also be adopted by Congress. Where ITQ's are not appropriate, we recommend buyouts to reduce fleet capacity in accordance with strong conservation criteria to prevent the displacement of excess capacity to other stressed fisheries.

We also strongly support disaster relief for fishermen, but we need to be mindful of the interaction between natural variation and fishing. When an El Nino hits, and they are now predictable by NOAA due to good satellite data and good models, fishing effort has to come down in order to accommodate nature. Nature is not going to accommodate us. We must control our fishing mortalities to accommodate nature.

Better science and improved management of fisheries will accomplish nothing if the habitats that support fish are destroyed or degraded. But that is just what is happening. The degradation of salmon habitat by poor forestry practices, massive water diversions, dams and other factors has received a great deal of attention and money. In some regions, I am happy to report that great

progress is being made due to these efforts. And it is to the credit of many farmers, water districts, loggers, and others that I have personally worked with in California.

The winter run chinook is making a valiant attempt to recover. and it is up by several thousand fish over a few years ago due to these efforts.

Unfortunately, this is not true everywhere. And there is going to be a continuing need for vigilance to bring back the salmon and the fishery that depends on it. Part of the problem is that fish habitat really is all over the place. It is all over the ocean. And it is spread across the jurisdictions of many different agencies.

The EFH mandate of the Act can keep habitat protection on the radar screen of all the relevant Federal agencies. The EFH mandate needs to remain broad, in my view, to address the plethora of threats to the freshwater and marine habitats. NMFS is working quite effectively to implement EFH with low or no impact on existing regulations in the Bay Delta system near San Francisco, where I work.

Unfortunately, very little progress has been made toward meeting the other mandate of the EFH provisions, which is to reduce the adverse impacts of fishing. This, despite the large and growing body of scientific evidence that certain kinds of fishing reduce biodiversity and harm the integrity of the marine habitats that support all of this economic activity. The Pacific Council and NMFS have started to take action to try to understand what these impacts are.

But the most powerful way to understand the impacts of fishing on habitat would be to establish research reserves, where fishing is excluded. This is simply the way good science is done. One must isolate the factor of interest. And this is the only way we are going to discover what the role of fishing is in the decline of fish stocks, as opposed to natural variation, pollution or other factors. You must isolate the variables.

Reserves, if designed well, would have the added benefits of proactively protecting habitats for fishing while this information is being gathered. Marine reserves are often criticized as being untested and uncertain. However, dozens of scientific studies show that marine reserves do indeed increase fish abundance and size, often by several-fold. There is also increasing evidence that marine reserves export young fish to fishing grounds, enhancing yields there.

And perhaps you have heard from people in New England about the phenomenal success of the closed areas in Georges Bank in increasing scallop and haddock populations inside those closed areas. Scallop populations are up by 1,300 percent in some cases. And the significant thing on Georges Bank is that it shows clearly that these closed areas can actually export young fish and young scallops over their borders and enhance yields by up to 130 percent nearby.

Are there similar data supporting the efficacy of conventional fishery management measures? I do not think so.

In summary, Environmental Defense has concluded that while well-intentioned, the 1996 amendments to the Act have not fulfilled their great conservation or economic promise. Modest changes in

the Act are needed, but I agree with other panelists that the larger changes that are needed are really in implementation and funding. Priorities should include documenting bycatch and quantifying discards with an observer program out here on the west coast.

We are recommending greater funding for fishery science, not just for data acquisition, but for improving the scientific and theoretical basis for understanding how fish populations work and how ecosystems work. This needs to be coupled with stronger implementation of the precautionary principle. Because, as I said before, this uncertainty is not going to go away, no matter how much money we throw at it.

We further recommend that the moratorium on ITQ's be lifted in accordance with the recommendations of the National Research Council (NRC) report. And, finally, we recommend that the EFH provisions of the Act be strengthened and implemented in part with marine reserves to reduce the uncertainty around the impacts of fishing and to protect marine and freshwater fish habitats.

Thank you.

[The prepared statement of Mr. Fujita follows:]

PREPARED STATEMENT OF ROD FUJITA, SENIOR SCIENTIST, ENVIRONMENTAL DEFENSE

Thank you for this opportunity to testify on the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act. I am Rod Fujita, senior scientist with Environmental Defense (formerly known as the Environmental Defense Fund). Environmental Defense fully supports the reauthorization agenda of the Marine Fish Conservation Network, which is attached. The Network is a coalition of more than 80 environmental groups, sport and commercial fishermen, and marine scientists working to improve our nation's fisheries laws.

I will focus my testimony on three fundamental problems facing US fisheries today: (1) scientific uncertainty and the lack of sufficient precautionary action; (2) lack of management resolve; and (3) management regimes that create incentives for overexploitation. I offer solutions to each of these problems: (1) higher appropriations for fisheries research, the establishment of a network of marine reserves, and a greater emphasis on precautionary action; (2) better balance among stakeholder interests within the regional fishery management Councils; and (3) lift the moratorium on Individual Transferable Quotas (ITQs).

PROBLEMS

Too many commercially exploited fish populations are in decline. Here on the west coast, bocaccio, canary rockfish, cowcod, yellowtail rockfish, and lingcod were all fished down too aggressively; managers and agency scientists overestimated the productivity of these long-lived fish. This aggressive fishing took place during a time of relatively low productivity. The warnings of environmentalists and other scientists that aggressive fishing plus poor ocean conditions could result in collapse were largely ignored. These fish population declines have resulted in devastating economic loss, and untold ecological damage. Strong action was called for, in order to sustain fishing communities and protect the marine ecosystems that support them. The 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act had the potential to effect real change. However, spotty and timid implementation has resulted in the continuation of the status quo in too many cases. As a result, the west coast and the Nation as a whole are still suffering large economic and ecologic losses from poor fisheries management.

DIAGNOSIS

(1) *Scientific uncertainty and lack of sufficient precautionary action.* West coast fishery managers and agency scientists relied on uncertain assumptions about groundfish productivity that later proved to be wrong. Sometimes the precautionary approach was applied, but too often it was not. The precautionary approach calls for management actions that reduce the risks to fish populations and marine ecosystems, when the impacts of fishing are uncertain. However, in fisheries management, a double standard prevails, in which very few or no data were necessary to

support status quo fishing levels, but precautionary or conservation measures were often strongly opposed because of lack of data. Many argued that the data showing declines in fish abundance were of such poor quality that they could not support management actions such as reduced fishing quotas. However, when uncertainty is that high, it is certainly more prudent to cut back on fishing and conduct research to discover what truly sustainable fishing levels are, than to maintain the status quo, as was done too often. Moreover, although many claim that the precautionary approach was built into stock assessments and the quota-setting process in the form of conservative assumptions, the truth is that fishing mortality was probably grossly underestimated because discard mortality has never been quantified or properly accounted for. Also, managers refused to establish no-take marine reserves, which would have afforded the only effective insurance policy against management errors by protecting real, living fish in the water, rather than theoretical fish spawned in computer models. Moreover, marine reserves would have allowed managers to perceive declines earlier (by offering contrast to conditions on the fishing grounds) and to tease out the relative importance of fishing mortality, ocean productivity, and other factors of decline.

The ecological costs of fishing are even less studied than the impacts of fishing on target and bycatch populations, but evidence of adverse ecological impacts is emerging. Globally, recent research shows that fishing has altered the very structure of ocean food webs, simplifying them by taking out top predator species. There is clear evidence that fishing resulted in mass starvation of seabirds in Norway. There is also abundant evidence that scallop dredging, certain kinds of trawling, and other types of fishing can harm bottom habitats.

On the west coast, a recent study conducted in the Monterey Bay National Marine Sanctuary shows that trawling has strong impacts on bottom habitat (Engel and Kvitek, 1998). The heavily trawled area that was studied had less large rocks and mounds, more exposed sediment, and less debris than the lightly trawled area.

Rocks and mounds contribute to the structural complexity of the bottom, and are very important to many different kinds of organisms that are found only in association with such structures. Exposed sediments tend to be poorer in food quality than sediments that are covered with encrusting organisms or held together by tube-forming organisms; hence, productivity is usually lower. Debris (usually fragments of kelps, marine "snow", fecal material, and the like) is a critically important food source for many benthic organisms. Not surprisingly, the study showed that sea pens, sea stars, sea anemones, sea slugs, and most polychaete worms were all far less abundant in the highly trawled area. Nematode and oligochaete worms (opportunistic, "weedy" species) were more abundant in the highly trawled area, but overall, trawling clearly reduced biodiversity.

The authors of this study concluded that "the only way to address these questions adequately [referring to questions about the impacts of fishing on habitat] is through large-scale, long-term, manipulative studies in marine reserves" (Engel and Kvitek, 1998).

Another Pacific study found significant differences in rockfish assemblages between trawled and untrawled areas (Matthews & Richards, 1991). The rockfish assemblages differed significantly in species composition, biodiversity, and biomass, with the untrawlable regions having significantly larger catches than the trawlable habitats (Matthews & Richards, 1991). This finding indicates that as more regions become trawlable due to gear improvements and as benthic habitats become more altered, there may well be significant changes in species composition and biomass, resulting in lower fish productivity.

Despite these findings, and similar findings from around the world, no action has been taken to reduce the risk of harming marine ecosystems from the impacts of fishing, contrary to the intent of the EFH requirements of the Magnuson-Stevens Act. Marine reserves can help reduce the adverse impacts of fishing on habitat, in compliance with these EFH requirements. In addition, marine reserves offer one of the only rigorous scientific methods for evaluating the impacts of fishing, by offering reference or control areas for comparison with fishing grounds.

(2) *Lack of management resolve and leadership.* Proper implementation of the precautionary approach requires painful choices and leadership. Caving in to short term economic pressures subverts fisheries management. While many individual west coast fishery managers have shown a great deal of courage and leadership over the years, the reliance on general consensus among a very large and diverse group of stakeholders has hamstrung them and resulted in a lowest-common denominator approach to management too often.

(3) *Management regime that creates incentives for overexploitation.* Open access management clearly creates incentives for a fisheries arms race and overinvestment,

leading to debt and calls for ever-larger catches to forestall economic disaster. In the free-for-all created by open access, any fish left in the water for conservation purposes can be caught by the next vessel that comes along, and fish have value only when caught. This sort of management system creates strong incentives to catch as many fish as quickly as possible, and this leads to frenzied fishing derbies (if total allowable catch levels are set).

Limited entry programs have a rather abysmal record, because they are often implemented very late in the game when fleets are already overcapitalized. Often, too many permits are granted in response to pressure to be inclusive; hence, fleet size and fishing power are not reduced. Strong incentives to increase fishing power persist in most limited access systems because fishers do not have reliable assurances that they can catch a certain portion of the TAC (Gorte et al., 1985; Waters, 1991; Townsend, 1992). As a result, fishing power usually increases within limited access programs, even when input controls are in place (e.g., Norwegian purse seine fishery, BC salmon fisheries, US New England groundfish fishery; Townsend, 1992; Anthony, 1990) due to creative circumvention of input controls.

In west coast groundfish fisheries, declining fish abundance has necessitated the adoption of drastically reduced catch quotas and the imposition of smaller and smaller trip limits. Because the number of vessels is much higher than the number required to catch the available fish profitably, the low trip limits threaten the economic viability of many fishers. Moreover, the low trip limits induce discards, as fishermen try to maximize the value of the small loads that they can land by throwing back lower value fish.

In contrast to open access and most limited access management regimes, almost all Individual Transferable Quota (ITQ) programs have effectively ended the race for fish and reduced overcapitalization (Muse and Schelle, 1989; Muse, 1991). Five of the six ITQ programs reviewed in NRC (1999) did so.

Moreover, ITQ programs have an excellent conservation record. Of the ITQ programs reviewed in NRC (1999), only the Icelandic cod ITQ program failed to keep catch within TAC levels, and this was because many vessels were exempted from the ITQ program. Landings have been substantially below the TAC in the wreckfish ITQ program, perhaps because quota holders are "banking" fish in the hopes of realizing sustainable catches over the long term (NRC, 1999). Pressure to increase the TAC that existed prior to ITQs has now disappeared (NRC, 1999). The biological status of New Zealand fisheries has improved substantially since ITQs were implemented: 7.4% are overfished, 11% are above the biomass needed for MSY, 18% are at or near MSY biomass, and the status of 64% is unknown (NRC, 1999).

The best picture of how US ITQ programs may operate can probably be obtained by looking at the performance of the Alaska sablefish and halibut ITQ program, because it is the only US ITQ program that incorporates many of the features that have been recommended by the NRC committee on Individual Fishing Quotas (e.g., caps on quota accumulation, owner-on-board requirement, etc.).

- The Alaska ITQ programs stopped the race for fish and increased season length from less than 5 days per year to 245 days per year, and reduced overcapitalization.
- The TAC has never been exceeded under the Alaska ITQ programs (NRC, 1999).
- Bycatch discard was reduced by about 82% in the Alaska halibut fishery after ITQs were implemented (NRC, 1999). This estimate is uncertain.
- Ghost fishing mortality for halibut was reduced by about 77% in the Alaska halibut fishery after ITQs were implemented (NRC, 1999).
- There is no evidence of highgrading (dumping of lower value fish to maximize value of the quota share) resulting from the Alaska ITQ programs (NRC, 1999).

• Safety appears to have improved due to the Alaska ITQ programs, due to the end of the race for fish; search and rescue missions dropped by 63% after ITQs were implemented (NRC, 1999).
• Excessive consolidation of fishing fleets and corporate takeovers of independent fishing firms has not occurred, probably due to the restrictions on ITQ ownership contained in the Alaska ITQ program.

SOLUTIONS

(1) Scientific uncertainty.

• Keep the EFH mandates in the MFCMA intact, and provide more resources for conducting the research and mapping necessary to identify especially important habitats for protection. Environmental Defense fully supports the position of the Marine Fish Conservation Network on EFH.
• Appropriate more money for fisheries science and research, but increase cost-effectiveness by contracting with fishermen and graduate students. Focus on identifying important habitats, food web interactions, controls on reproduction and recruitment, quantifying discard mortality, reducing bycatch and discards, creating a new MSY policy for groundfish, and developing gear performance standards to minimize habitat damage. Recognize that due to natural variability, even substantial uncertainty will remain despite even quite large increases in research investment.
• Establish networks of no-take marine reserves.

(2) Lack of management resolve and leadership.

• Create a better balance of stakeholder interests on the regional Councils by including more scientists, economists, conservationists, consumer advocates, etc.
• Consider breaking regions up into smaller management areas.

(3) Management regime that creates incentives for overexploitation.

• Lift the moratorium on ITQs, on the condition that all ITQ programs comply with conservation principles as outlined in the Marine Fish Conservation Network agenda. ITQs can be structured to prevent undesirable social and economic outcomes, such as excessive consolidation of fleets or take-overs by large corporations, as well as to improve fisheries conservation.

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Senator SNOWE. Thank you.

Dr. Sampson.

STATEMENT OF DAVID SAMPSON, PH.D., ASSOCIATE PROFESSOR OF FISHERIES, OREGON STATE UNIVERSITY

Dr. SAMPSON. Madam Chair, members of the Subcommittee, thank you for inviting me to testify before you today.

For the record, my name is David Sampson, and I am an Associate Professor of Fisheries at Oregon State University. My work includes preparing stock assessments for the Pacific Fishery Management Council and conducting research on the accuracy of stock assessment methods. I will focus my testimony primarily on the use of stock assessments in fisheries management, but I will also comment on the use of observers.

Stock assessments provide fishery managers with the basic information regarding the status of exploited fish stocks. Many of our stocks are managed on the basis of annual harvest quotas that are derived from estimates of current stock size and estimated target fishing rates. These estimates of biomass and fishing rate are subject to considerable uncertainty.

In general, there are two primary sources for the data used in the stock assessment. One set comes from scientific surveys of the stock. The other comes from the fishers, either in the form of landing receipts and logbooks, or from scientific sampling of the landed catch. Assessment scientists often use a catch-at-age analysis to reconstruct the demographic history of the stock and estimate the current exploitable biomass on which the harvest quota is based. Assessment scientists use a second type of analysis to derive the target fishing rate, the other key ingredient for calculating the harvest quota.

In response to the new guidelines for the national standards established in the 1996 amendments to the Magnuson-Stevens Act, the Pacific Council adopted new definitions for overfishing, overfished and optimum yield, and established new procedures for setting the annual harvest quotas. These procedures are illustrated in the diagram.

And if I could have the overhead please.

These procedures are considerably more complex than the previous ones. And, in my view, they place unrealistic demands on fisheries science. The primary change was the addition of two thresholds. If the stock is greater than 40 percent of its unfished size, then the quota is just the product of the current stock size times the target fishing rate. If the stock drops below 40 percent of its unfished size, the target fishing rate is set below the FMSY level and the quota is reduced proportionately. If a stock drops below 10 percent of its unfished size, the target fishing rate is reduced to zero.

It is entirely appropriate that fish stocks be managed more conservatively when they are at low levels. However, it is extremely problematic to implement this engineering approach to harvest policy because of our general inability to provide reliable estimates of current and unfished stock size. Also, for many of our west coast

stocks, there are inadequate data available to estimate the current stock size, let alone the unfished size.

Estimates of fish stock size are inherently imprecise. Consider, for example, estimates of stock size from recent assessments of a west coast stock of yellowtail rockfish. The stock size series estimated by the 1996 assessment was dramatically different from the 1993 assessment, and indicated that significant reductions were needed in the annual harvest quota. The assessment was redone in 1997, and the estimates of stock size and the harvest quota essentially returned to the levels estimated in the 1993 assessment.

Part of the instability of west coast assessments is due to the general lack of reliable long-term survey and fishery data series. For example, the trawl survey estimates of rockfish stock size are highly imprecise. And the surveys are only conducted every third summer. However, even with thorough long-term monitoring and top-quality stock assessment science, our perceptions of stock status can be highly inaccurate. Pacific halibut off Alaska and northern cod in Atlantic Canada provide recent examples of stocks that have been extensively monitored and studied and yet, in retrospect, there were dramatic errors in the assessments of stock size.

The harvest quota system that has developed as a result of the 1996 Sustainable Fisheries Act is unrealistically complicated, given the level of accuracy that we can reasonably expect from our stock assessments. We need to develop fishery control systems that have simple data requirements and that are robust to data errors.

With regard to observer programs, the Pacific Council does not currently have any observer programs. An observer program could provide information on the bycatch of fish that are currently discarded at sea. Better information on discards would undoubtedly improve the quality of our stock assessments. But so, too, would better survey or age composition data.

Instituting an observer program to monitor at-sea discards seems an extraordinary way to handle the wastage of marketable fish. Counting how many fish are thrown overboard draws our attention to the problem, but it does little to solve it. Trawl fishers discard their catches of salmon and halibut because the law requires them to do so. Why cannot we have a system that allows trawl fishers to buy the rights to take incidental harvests of salmon and halibut rather than forcing the fish to be discarded at sea? The fish would not be wasted. The salmon and halibut fishers could be compensated for their lost fishing opportunities. And the public would enjoy additional fish in the market.

Similarly, discarding of marketable fish due to trip limits could largely be eliminated if fishers were permitted to trade and stack fishing permits to cover their trip limit overages, a practice that is currently banned because of the SFA prohibition against individual fishing quotas.

Madam Chair, this concludes my testimony. Thank you for inviting me to speak to you today.

[The prepared statement of Dr. Sampson follows:]

PREPARED STATEMENT OF DAVID SAMPSON, PH.D., ASSOCIATE PROFESSOR OF FISHERIES, OREGON STATE UNIVERSITY

Madam Chair and members of the Subcommittee, thank you for inviting me to testify before you today on issues related to the reauthorization of the Sustainable Fisheries Act (SFA). For the record, my name is David Sampson and I am an Associate Professor of Fisheries at Oregon State University. My work includes preparing stock assessments for the Pacific Fishery Management Council (PFMC) on behalf of the Oregon Department of Fish and Wildlife, and conducting research on the accuracy of stock assessment methods, sponsored by the Oregon Sea Grant College Program. Also, I was a member of the National Research Council's Committee to Review Individual Fishing Quotas and for six years (1993–98). I served the PFMC as an at-large member of its Scientific and Statistical Committee. You have asked me to testify on the impact of the SFA on fisheries in the Pacific Northwest and to make recommendations for the reauthorization of the Act. I will focus my testimony primarily on the use of stock assessments and scientific data in fisheries management, but, as requested, I will also comment on the use of observers and on the essential fish habitat provisions of the Act.

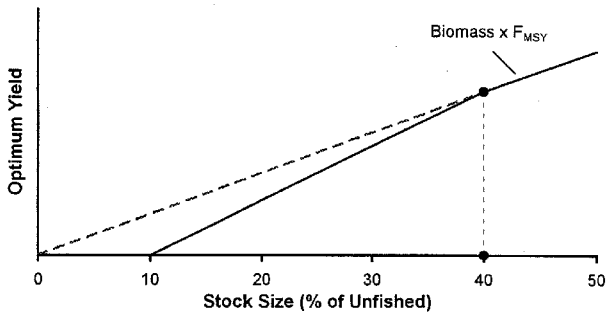
STOCK ASSESSMENTS AND SCIENTIFIC DATA IN FISHERIES MANAGEMENT

The two main problems confronting fisheries managers are determining acceptable levels of harvest and crafting regulations that will achieve those levels. Setting regulations is an especially difficult task because almost all regulations tend to favor one group of fishers over another. Political maneuvering to influence the regulations often is very intense. Because I have no expertise in fisheries regulations I will confine my testimony to issues related to determining target levels for harvest.

Stock assessments provide fishery managers with basic information regarding the status of exploited fish stocks, whether they are increasing or decreasing and why. Many stocks are managed on the basis of annual harvest quotas. The quota for a stock is usually derived from the estimated current exploitable biomass and the estimated target fishing rate. Projections of future harvests can be made if the strength of incoming year-classes (the recruits) can be estimated or assumed. These estimates, of current biomass, the target fishing rate, and future recruitment, are subject to considerable uncertainty. Marine organisms are difficult to observe and reliably monitor and they are often subject to variable environmental factors over which Man has no control. Fishery managers aim to maintain the fish stocks and the fisheries that exploit those stocks, but they generally have imperfect information on the conditions of the stocks and dull instruments with which to affect the stocks.

In general there are two primary sources for the data that are used in a stock assessment. One set of data comes from scientific surveys of the stock; the other comes from the fishers, either in the form of landing receipts and logbooks, or from scientific sampling of the landed catch. With a relatively long-lived organism assessment scientists often use a "catch-at-age analysis" to reconstruct the demographic history of the stock. This type of analysis provides the estimate of the current exploitable biomass on which the harvest quota is based. The analysis attempts to account for temporal changes in stock abundance based on landings and age composition data series from the fishery, coupled with stock size and age composition data series from the scientific surveys. Assessment scientists use a second type of analysis, usually a "yield-per-recruit" or "spawning-biomass-per-recruit" analysis, to derive the target fishing rate, the other key ingredient for calculating the harvest quota. These analyses use estimates of growth, mortality and maturity to gauge the impact of different fishing rates on the productive capacity of the stock.

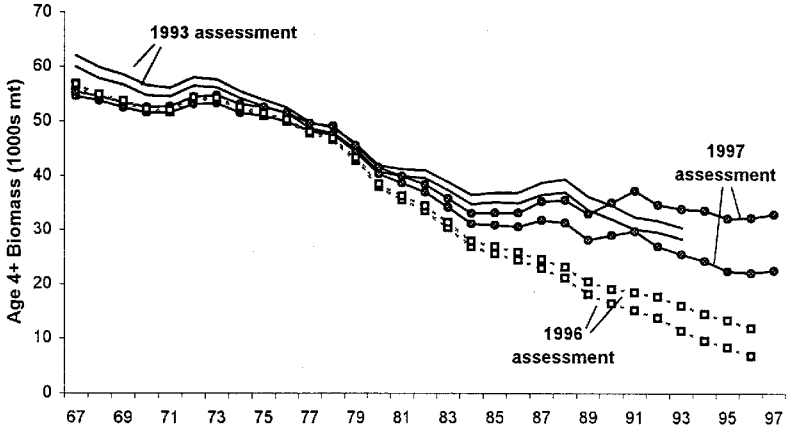
In response to the new guidelines for the National Standards established in the 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act, the Pacific Fishery Management Council amended its Pacific Coast Groundfish Fishery Management Plan. The Council adopted new definitions for "overfishing", "overfished", and "optimum yield", and established new procedures for setting annual harvest quotas. The new procedures, illustrated in the diagram below, are considerably more complex than the previous ones and, in my view, they place unrealistic demands on fisheries science.



The primary change in the procedure for setting the "optimum yield" quota was the addition of two thresholds. If a stock is greater than 40% of its unfished size, then the quota is the product of the current stock size times the target fishing rate (F_{MSY}, the fishing rate that produces the maximum sustainable yield, MSY). If a stock drops below 40% of its unfished size, the target fishing rate is set below the F_{MSY} level and the quota is reduced proportionately. If a stock drops below 10% of its unfished size, the target fishing rate is reduced to zero.

It is entirely appropriate that fish stocks be managed more conservatively when they are at low levels. Compared to the Council's old harvest policy (indicated in the diagram by the dashed line), the new policy will more rapidly rebuild an overfished stock to levels that will support larger and less variable harvests. However, it is extremely problematic to implement this engineering approach to harvest policy because of our general inability to provide reliable estimates of current and unfished stock size. We do not have a stable measure to gauge whether a stock is overfished. Similar problems arise with thresholds based on an MSY stock size level. Also, for many of our west coast stocks there are inadequate data available to estimate the current stock size, let alone the unfished stock size.

Estimates of fish stock size are inherently imprecise. Consider, for example, estimates of stock size from recent assessments of a west coast stock of yellowtail rockfish.



The stock size series estimated by the 1996 assessment was dramatically different from the 1993 assessment and it indicated that significant reductions were needed in the annual harvest quota. The assessment was redone in 1997 and the estimates of stock size and the harvest quotas essentially returned to the levels estimated in the 1993 assessment. There have been similar dramatic changes in our perceptions of stock status with several other west coast stocks.

Part of the instability of west coast stock assessments is due to a general lack of reliable long-term survey and fishery data series. For example, the trawl survey estimates of rockfish stock size are highly imprecise, with large coefficients of variation (50% or larger). Furthermore, the surveys are only conducted every third summer.

Even with thorough long-term stock monitoring and top-quality stock assessment science our perceptions of stock status can be highly inaccurate. Pacific halibut off Alaska and British Columbia and Northern cod in Atlantic Canada provide recent examples of stocks that have been extensively monitored and studied, and yet retrospective analyses have uncovered dramatic errors in assessments' estimates of stock size. In the case of Pacific halibut, assessments conducted in the mid 1990s estimated the stock size for Area 3A at about 130,000 tons in 1989, compared to the 80,000 tons underestimated by the 1989 assessment. The reverse type of error occurred with Northern cod. Stock assessments conducted during the early 1980s overestimated stock size by a factor of two compared to estimates for the same period from later assessments. The consequence for Northern cod was overfishing, stock collapse, and the closure of what had been a highly productive and stable fishery.

The harvest quota system that has developed as the result of the 1996 Sustainable Fisheries Act is unrealistically complicated given the level of accuracy that we can reasonably expect from our stock assessments. We need to develop fishery control systems that have simple data requirements and that are robust to data errors.

OBSERVER PROGRAMS

The Pacific Fishery Management Council does not currently have any observer programs. The Oregon Department of Fish and Wildlife, in cooperation with the Oregon Trawl Commission and the Pacific States Marine Fisheries Commission, has for several years operated a limited program with volunteer trawl vessels fishing from ports in Oregon. An observer program could provide information on the bycatch of fish that currently are discarded at sea. Some of these discards occur because the fish are unmarketable, some because they are prohibited species (e.g., salmon and halibut in the trawl fishery), and some because of the system of trip limits that the Council uses to slow the pace of fishing and thereby maintain year-round fisheries. west coast stock assessments generally attempt to account for these at-sea discards but do so without any current data. Better information on discards would undoubtedly improve the quality of our stock assessments, but so too would better survey or age-composition data.

Instituting an observer program to monitor at-sea discards seems an extraordinary way to handle the wastage of marketable fish. Counting how many fish are thrown overboard draws our attention to the problem but does little to solve it. Trawl fishers discard their catches of salmon and halibut because the law requires them to do so. All of the discarded salmon and half or better of the discarded halibut do not survive the experience. The trawl fishers are no better off as a result of this practice, nor are the salmon and halibut fishers, nor are the stocks of salmon and halibut, nor is the general public. Why can't we have a system that allows trawl fishers to buy the rights to take incidental harvests of salmon and halibut, rather than forcing the fish to be discarded at sea? The fish would not be wasted, the salmon and halibut fishers could be compensated for their lost fishing opportunities, and the public would enjoy additional fish in the market. Similarly, discarding of marketable fish due to trip limits could largely be eliminated if fishers were permitted to trade and stack fishing permits to cover their trip limit overages, a practice that is currently banned because of the SFA prohibition against individual fishing quotas.

ESSENTIAL FISH HABITAT

All organisms require suitable habitat for their continued existence and successful reproduction. For many marine organisms the habitat requirements vary as the organisms grow through their various life stages. Defining on a scientific basis that a particular habitat is essential for the survival of a given organism is extremely difficult, except when done in very general terms. For many marine fishes along the west coast spawning occurs over a broad geographic range and the larval fish drift in the plankton for several months. During this interval the waters in which the larvae reside are essential to their continued existence. Given that there is a myriad of commercially important fish species along the west coast leads to the conclusion that the entire expanse of the territorial sea and beyond is essential fish habitat. Such a broad definition seems likely to have little practical importance.

With regard to possible detrimental effects of fishing gear on the long-term productivity of the ecosystem, little information is available. Given the generally high

degree of natural variability in the marine upwelling ecosystem off the west coast, it seems likely that long term studies will be required to establish conclusively whether or not the various types of fishing gear have more than just a transitory effect on bottom habitats.

Madame Chair, this concludes my testimony. Thank you for inviting me to speak to you today.

Senator SNOWE. Thank you, Dr. Sampson.

Mr. Leipzig.

STATEMENT OF PETER LEIPZIG, EXECUTIVE DIRECTOR, FISHERMEN'S MARKETING ASSOCIATION

Mr. LEIPZIG. Good morning, Madam Chairman and members of the Subcommittee. My name is Peter Leipzig. I am an Executive Director of the Fishermen's Marketing Association. And I represent commercial groundfish and shrimp fishermen in Washington, Oregon and California. I have worked for the Fishermen's Marketing Association since 1978. My education is in the field of zoology and wildlife management. And in the past, I have worked with the National Marine Fisheries Service, as well as the California Department of Fish and Game.

I have been a participant in the Pacific Fishery Management Council process for nearly 22 years. And I have served on numerous Council committees and have served two terms as a Council member. I was Vice-Chairman of the Council for a two-year period, also.

I have been asked to focus my comments on the stock assessment process and data collection. And it should be obvious without saying it, but the quality of any of our stock assessments is no better than the data and the quantity of data that goes into those assessments. To answer the question, "do we need more data," well, yes, certainly we need more data. We need all sorts of data and all varieties of data.

However, we have to be realistic. There are some data that we are never going to obtain. We cannot go back in time and begin collecting data that we have failed to collect in the past. And this missing data is a major shortcoming in many of our stock assessments, in my view.

We lack some of the most fundamental information, such as landings data, prior to 20 years ago, for the rockfish species. We lumped 50-some species of rockfish into one category called "other rockfish." And that is the way they come into the landing. So we had very little information on which species composed that category.

In many cases, we lack length information and weight information and sex information. We have survey work that is conducted by the National Marine Fisheries Service. And others have referred to this, the tri-annual survey that is conducted once every three years. That survey is our longest time series, and it began in 1977. But we have very few data points over that 20-some-year period because of the frequency of that survey. It produces biomass estimates that are plus or minus 100 percent. They are not very precise estimates.

So where are we right now? Well, we do not know how many fish we have caught. We do not know how old they are, for the most

part. We do not know how fast they are growing. And we have poor estimates of our population trends.

And even though this historic information is poor and we are making little progress to begin collecting contemporary information, the management system is demanding more and more technical answers. Now, I am supporter of the Council process and of regional management. However, I believe that our current system is broken. It has become too complicated and too rigid. We are simply demanding too much from science.

A stock assessment scientist now is asked to estimate not only the current biomass with this limited information, but estimate the unfished biomass. And then project into the future what the yield should be for the purpose of establishing quotas. In reality, we would be lucky if we can detect what change is occurring in the stock itself.

To better understand fish populations, biologists have attempted to model them. This modelling exercise requires much of the same information that we are lacking. But it also assumes that the environment is constant. We know that this is not correct. We know that the ocean environment is changing constantly. We know from science that long ago we had ice ages and that, since then, the earth has warmed up. We are no longer considered in an ice age. And that is a very long-term type of change.

We also know that there are very short-term types of changes. This is the kind of thing that every fisherman can see from year to year. We have, for some species, very strong year classes that appear out of nowhere. And this is because the environment has provided the opportunity for those fish to experience that and survive.

We are beginning now to understand that there are some changes that occur in the ocean environment that are more intermediate in length, perhaps 10 to 40 years. And during these periods, the ocean conditions are conducive for the survival of certain fish and not very conducive for the survival of other fish. And when this condition reverses, those species that were surviving in the past may be on a decline in the future.

Oceanographers are referring to these as regime shifts. And it is widely agreed that in the Pacific region, a regime shift began in the late seventies. During this period, and others have mentioned it, we saw a decline in northern anchovies while we saw a similar increase in abundance of Pacific sardines.

Relating to the groundfish fishery, through this period, we have seen a dramatic decrease in survival of young rockfish. Bocaccio rockfish is a species of very much concern. There has been nearly a complete recruitment failure of bocaccio rockfish since the late 1970's. The reason I am dwelling on this point is I think the fisheries management can no longer just take a snapshot in time and assume that those conditions are going to continue into the future.

Central to our management system is the concept of MSY. And this assumes that there is some long-term average that we can harvest from our stocks. But it also assumes that the environment is constant.

There is a concept that comes out of wildlife management called the carrying capacity. It refers to the amount of animals that a

habitat can produce and sustain. It is in relation to the current ability of the habitat. As the habitat changes, the environment changes, and the carrying capacity decreases. I believe that this concept should be incorporated into our definition of what MSY is.

If the Act were to be modified in such a way that we could begin thinking in terms of stocks that are at low levels of abundance, one, as those that have been overfished and are at low abundance; secondly, those that are at low abundance because man has caused some changes to the habitat; and, third, because the habitat itself has changed. And I think this would provide the Council some flexibility on how they go about approaching stocks at low abundance, rather than simply referring to them all as "overfished."

In conclusion, we need more data collection. We need survey work and port sampling, as Phil Anderson had referred to. We need to improve our systems for tracking the data collection that we do engage in. We need personnel in order to do it. But, most importantly, we need to begin imposing some common sense into determining when stock assessments can be conducted. And we need to begin thinking about non-quota approaches to managing some of our fish. The system in general has to become far more flexible.

I see the red light has come on, and so I will end right there and answer any questions you may have.

[The prepared statement of Mr. Leipzig follows:]

PREPARED STATEMENT OF PETER LEIPZIG, EXECUTIVE DIRECTOR, FISHERMEN'S MARKETING ASSOCIATION

Madame Chairwomen and members of the Subcommittee, my name is Peter Leipzig. I am the Executive Director of the Fishermen's Marketing Association. I represent commercial groundfish and shrimp fishermen in Washington, Oregon, and California.

I have worked for the Fishermen's Marketing Association since 1978. My education is in the fields of Zoology and Wildlife Management. In the past I have worked for the National Marine Fisheries Service and the California Department of Fish and Game.

I have been a participant in the Pacific Fishery Management Council process for nearly 22 years. I have served on numerous Council committees and as a Council member for two terms, including two years as vice-chair.

I have been asked to focus my comments on the stock assessment process and data collection. The quality and quantity of data available for any species limits the quality of any of our stock assessments. Do we need more data? Yes, we need more data of various types. However, we will never obtain some data. We can not go back in time and begin to collect information that we did not collect in the past. This missing data is a major shortfall in many of our assessments.

In most cases we lack the most fundamental information, such as landings data beyond 20 years ago. We used to lump 50-some species together as "other rockfish". In other cases we lack length, weight, and sex information. Bony structures used to age fish are not collected for most species. And needless to say, without bony structures, age validation studies for most species are not being conducted.

The fisheries independent survey work that NMFS has performed for the longest time period on the Pacific Coast is conducted once every three years. This survey provides biomass estimates that are generally plus or minus 100%.

So where are we? We do not know how many fish we caught, we do not know how old they were, we do not know how fast they grow, and we have poor estimates of trends in the populations.

Even though we lack historical information and little progress is being made to collect contemporary data, the management system is demanding more and more technical answers.

I am a supporter of the Council process and of regional management of the resource. However, I believe that our current system is broken. We have made this process too complicated and too rigid. We are demanding too much from science. An assessment scientist must tell the Council what the current biomass is, what the

unfished biomass was, and project yields for quotas into the future. In reality, we would be lucky to show whether a population is changing. Yes, assessment scientists can produce the information we ask of them, but around the country—sport and commercial fishermen—are reacting with disbelief to many of these assessments. Their perception of the status of a stock of fish does not jive with the conclusions of many stock assessments.

To better understand fish populations, biologists have attempted to model them. This requires information about growth, mortality, and removals. This required information is the same data that we are missing or have very little. We also assume that the environment is constant. We assume that a fish population in a state of equilibrium will produce the same amount of offspring, will grow at the same rate, and produce the same amount of fish that can be harvested year after year.

Change in the environment is not part of the model, even though we know the ocean environment is a dynamic, ever changing system. We know from science that there are very long-term changes in the environment. We know that many years ago there was an ice age and that gradually the environment has warmed up. We also see very short-term changes. From year to year the ocean environment is different and for some species this may be seen as strong year classes.

What we are beginning to understand is that there are changes that are more intermediate in length. These may be 10 to 40 years in duration. During these periods some species may prosper, while others may decline. When these conditions reverse, those species that had done well may begin to decline and those that had not done well will increase in abundance.

Oceanographers call these changes "regime shifts". It is widely agreed that a regime shift occurred in the North Pacific in the late 1970's. During this time we saw a decline in abundance of northern anchovy and an increase in abundance in Pacific sardine. More importantly to the Pacific groundfish fishery, there has been a dramatic decrease in the survival of young rockfish. For bocaccio rockfish, there has been a near complete recruitment failure since the late 1970's.

Why am I dwelling on this point? It is important in fisheries management that we do not simply take a "snapshot in time" and assume that those conditions will continue in the future. Fish populations that exist today could decline in the future simply because of changes in the ocean environment. Similarly, a fish population in the past may have been very large because environmental conditions were good, while the population may currently be at a low level because environment conditions are poor.

Central to our management system is the concept of Maximum Sustainable Yield (MSY). This concept assumes that there is some maximum amount of fish that can be removed from a stock of fish every year without impacting the stock. This concept assumes that the environment is relatively stable and therefore has little impact on the abundance of fish. This concept is flawed. We know the environment can significantly influence the abundance of fish.

There is a concept in wildlife management that has never made it into fisheries management, called the carry capacity. This is the maximum population the environment can support any point in time. It recognizes that the environment changes and therefore the number of animal will also change. I believe this concept should be incorporated into the Act in relation to MSY.

If the Act were to incorporate such a concept, then we could begin to think about stocks being at low levels of abundance as a result of: (1) overfishing, (2) man-caused impacts to the environment, and (3) natural fluctuation to the environment. Currently, the Act labels any stock at low levels of abundance as "overfished", even when a river dries up in a drought and all the salmon die. This distinction would allow Councils to continue to address overfishing problems, but could provide Councils needed flexibility in managing other stocks of fish.

One example of a data poor situation that the Pacific Council has dealt with this past year is the southern lingcod. The assessment was peer reviewed by a Stock Assessment Review (STAR) Panel last summer.

During the several-day review, the author on a daily basis expressed his opinion that sufficient data did not exist to conduct the assessment. He had only six years of biological information. He did have three sets of fishery-dependent trend data; however, none of these included the last several years. The modeling exercise was conducted and an estimate of current biomass was produced. An unfished biomass was estimated using high estimates of recruitment from earlier periods of greater abundance.

It was determined that the current biomass was less than 10% of the unfished level; therefore the stock was declared overfished. Sport and commercial fishermen both believed the stock to be in excellent condition. Nevertheless, regulations have been implemented that effectively have terminated a fishery for lingcod.

All of the data used in this assessment came from the fishery. Without a fishery, there is no method to monitor the recovery of this stock from its declared overfished state. The rebuilding plan contains a schedule of how much lingcod can be taken every year, and at the end of ten years the stock will be declared rebuilt. The loss of the fishery data over that ten-year period will hinder future stock assessment.

In conclusion, we need increased data collection through survey work and port sampling. We need to improve our data collection system of tracking landings, including recreational catch. There is the need for more personnel to collect and deal with this additional data. But most importantly we need to impose common sense in determining when stock assessments can be conducted. We need to think about non-quota approaches to managing some of our fish. The system must become more flexible.

Lastly, we need to begin addressing fishing capacity reduction on a national level. And I ask you to lift the moratorium on new ITQ systems.

Senator SNOWE. Thank you. Did you have much more? Did you want to finish your statement? Go ahead.

Mr. LEIPZIG. I would like to just say this. And it has nothing to do with data collection, but, as everyone else, I'll get my digs in. I think the time has come for the prohibition on ITQ's to be lifted. I think that it is a legitimate management tool. And the management Councils should have the flexibility to proceed with the development and implementation of those types of systems.

We also need to begin addressing the capacity issue on a national level. We have far too many people engaged in fishing activities. We need to find a way for them to exit the fisheries in a graceful manner. Right now, people can certainly leave the fishery. But they cannot do it by selling their business. Nobody is going to be buying boats entering into the fishing business at this point. We need to find some way for the Federal Government to participate in removing some of this effort.

And lastly, on observers, and I guess this does relate back to data collection, but I think there need to be clear objectives when an observer program is going to be implemented, and that some sort of uniform deployment of those persons across all users of the resource, people that are interacting in a fishery with the species in a fishery, should all be sampled. It cannot just be heavily weighted to the people that catch the most of those fish.

And reasonable costs have to be derived. The mean gross revenue in the groundfish trawl fishery for the three States of the Pacific groundfish fishery was $160,000 in 1998. Things are worse now. I have been told that observer costs for an observer company run in the neighborhood of $7,500 a month. That is $90,000 if you have an observer 12 months year. And 100 percent observer coverage is not going to be realistic if you expect for the industry to pay for the bill, because there is not that kind of money in this fishery.

Thank you.

Senator SNOWE. Thank you.

Mr. Anderson.

STATEMENT OF SAM ANDERSON, EXECUTIVE DIRECTOR, MASTER BUILDERS ASSOCIATION OF KING AND SNOHOMISH COUNTIES, WASHINGTON

Mr. SAM ANDERSON. Madam Chair, members of the Committee, my name is Sam Anderson. I am the Executive Officer of the Master Builders Association of King and Snohomish Counties. I am also a member of the National Association of Home Builders. And

today I represent not only the building industry, but also other industries that belong to the Essential Fish Habitat Coalition, which includes the National Association of Homebuilders, the American Forest and Paper Association, the Bay Delta Urban Coalition, the Edison Electric Institute, and the Association of California Water Agencies.

As a representative of the home building industry, I find it unusual to be speaking to this Subcommittee and on this panel, commenting on a statute that is intended to ensure sustainable populations of fish so they can be commercially harvested. But our coalition is here to ask the Subcommittee to consider three requests while passing the reauthorization of the Magnuson-Stevens Act.

First, we ask Congress to clarify in legislation its original intentions for the essential fish habitat program by narrowing the definition of essential fish habitat. We believe Congress never intended for the National Marine Fisheries Service to interpret the program as broadly as it has.

Second, we ask Congress to prohibit NMFS from imposing mandatory duties or timeframes on other Federal agency actions. Third, we ask that Congress direct NMFS to immediately develop a general concurrence for those activities that are already regulated and cause minimal impacts to areas identified as essential fish habitat.

I would like to touch briefly on our main concerns. First is our concern with NMFS' interpretation of Congress' intent. Congress spoke only of establishing guidelines and providing information on essential habitat. There is no indication in the Act that the essential fish habitat provisions should be of a regulatory nature. But, under the proposed EFH program, Federal action agencies are required to consult with the National Marine Fisheries Service and are required to provide a written assessment wherein there are mandated timeframes as part of that consultation process.

These requirements establish a new mandatory series of actions for Federal agencies. There is little doubt in our minds that the essential fish habitat regulations could delay or stop building permits, timber permits and other land-based activities in the Puget Sound. Further, if time lines are not met and recommendations are not followed, we are concerned that private parties will pursue litigation and even more permits and projects will be delayed.

Secondly, we are concerned NMFS's definition of essential fish habitat is too broad. NMFS' final interim rule retains an extremely broad definition of essential fish habitat. The regional fishery management Councils are mapping all existing and potentially historical habitat. When all habitat is covered under the program, the term "essential" becomes meaningless. We expect, with this broad interpretation, NMFS will be regulating activities occurring on inland waterways.

For example, the proposed essential fish habitat designations for salmon within the Pacific Fishery Council include the existing geographic range of all salmon species and much of their historic range. And I have with me the map that I think Senator Gorton was looking for when he was talking to Will Stelle. You will notice that most of the watersheds certainly west of the Cascades in the State of Washington have now been designated as essential fish habitat.

And to answer your question, yes, all of the 200-mile limit has been designated, as well.

Third, we are concerned about the information gathered to identify essential fish habitat. NMFS' interim final rule provides that data for identifying essential fish habitat should be obtained from the best available information. The information gathering procedures of both NMFS and the fishery management Councils ignore non-fishing entities or interests.

A Council system is designed to promote the interests of the fishing community, and justifiably. Yet the information from these Councils will carry great weight in determining essential habitat, and it will truly impact non-fishing interests. Also of concern in this area is NMFS' reliance on historic information when mapping essential habitat.

Fourth, we are concerned with the essential fish habitat consultation provisions. The interim final rule sets forth extremely stringent criteria for a consultation that does not take advantage of existing processes. NMFS often states that the essential fish habitat program is a voluntary information gathering tool. Yet it has promulgated a regulation that requires Federal action agencies to prepare essential fish habitat assessments, undertake other mandatory measures and meet mandatory deadlines. We believe Congress should direct NMFS to base the program purely as an information exchange process.

Fifth, we are concerned that the essential fish habitat consultation process is duplicative and redundant. For the most part, land-based activities have been addressed and controlled through numerous Federal, State and local laws and regulations. Most coastal States, including Washington, California and Oregon, have particularly stringent environmental protection laws at the State and local levels. And all three of these States have comprehensive land planning and regulations protecting environmentally significant areas and lands.

For these reasons, we believe it is important that a general concurrence policy be implemented between NMFS and other Federal agencies, and Congress should address the cost/benefit of this program.

Lastly, we are concerned with the unavailability and the lack of information. In my written statement, I have outlined information we believe should be provided by NMFS so that the American public and Congress can conduct meaningful review of the essential fish habitat consultations done to date. We ask that this Subcommittee request similar information, as outlined in my written testimony, from NMFS. Having significant information about consultations will be important if Congress is to evaluate the implementation of the EFH program to date.

In conclusion, we believe it is important that Congress clearly define the essential fish habitat provision's intent when it addresses reauthorization of the Magnuson-Stevens Act this year. Congress should also assist the American public by halting implementation of the essential fish habitat program until more guidance can be provided in the Act itself. Our coalition is, has been, and continues to be engaged with the National Marine Fisheries Service and Con-

gress in a discussion on how this program should work and where we might help.

Thank you very much.

[The prepared statement of Mr. Sam Anderson follows:]

PREPARED STATEMENT OF SAM ANDERSON, EXECUTIVE DIRECTOR, MASTER BUILDERS ASSOCIATION OF KING AND SNOHOMISH COUNTIES, WASHINGTON

Madame Chair, members of the Committee, my name is Sam Anderson and I am the Executive Officer of the Master Builders Association of King and Snohomish Counties. I am also a member of the National Association of Home Builders. Today, I represent not only the building industry but also other industries that belong to the Essential Fish Habitat Coalition. This Coalition is comprised of diverse non-fishing resource and business interests including the National Association of Home Builders, the American Forest and Paper Association, the Bay Delta Urban Coalition, the Edison Electric Institute and the Association of California Water Agencies. We are all extremely concerned about the National Marine Fisheries Service's (NMFS) implementation of the Essential Fish Habitat (EFH) Provisions of the Magnuson-Stevens Fisheries Act.[1]

First and foremost, the coalition is very concerned with the scope of the Essential Fish Habitat provisions as proposed by NMFS. The coalition believes that NMFS has far exceeded Congressional intent in its implementation. Because we work in heavily regulated industries, we worry that the proposed Essential Fish Habitat regulations will slow down permits and foster law suits—which will only raise the cost of conducting business for our industries. Worse, the requirements under the proposed regulation are redundant and duplicative.

As a representative of the home building industry, I find it curious to be speaking before a Senate Subcommittee on Oceans and Fisheries commenting on a statute intended to ensure sustainable populations of fish, so they can be commercially harvested. Yet, those familiar with the recently developed Essential Fish Habitat program will understand why I am here and why builders, developers, miners, hydropower electricity providers, farmers, and timber manager, nationwide are so concerned. We all know that the Essential Fish Habitat designation acts as a federal zoning overlay. The designation will ultimately result in land use restrictions and economic impacts on both coastal and upland land areas.

As a result of this, we ask you to consider three requests while passing the reauthorization of MSA. First, we ask Congress to clarify in legislation its original intent for this program by narrowing or clarifying the MSA's definition of Essential Fish Habitat. The coalition believes Congress never intended for NMFS to interpret the program as broadly as it has. Second, we ask Congress to prohibit NMFS from imposing mandatory duties or timeframes on other federal agency actions. Third, we ask that Congress direct NMFS to immediately develop a "general concurrence" for those activities that are already regulated and cause minimal impacts to areas identified as EFH.

We do not dispute the importance of efforts to identify and conserve the vital habitat areas of the United States' domestic fisheries. Our central opposition to the EFH regulatory program is that it superimposes the MSA decision process onto the land development process—a process that is *already* subject to state and federal comprehensive regulatory programs that address the full range of environmental concerns, including fish habitat.

1. NMFS is Acting Beyond the Scope of Congress' Intent in Developing Consultation Program

The home building industry, as well as the other members of our coalition, are very heavily regulated and sensitive to any additional pending restrictions on our activities. We believe Congress' intent under the MSA was to create a consultation program, not a new regulatory scheme. In fact, Congress spoke only of establishing guidelines and providing information on essential habitat.

Unfortunately, we believe very strongly that, based on NMFS's overzealous interpretation of the MSA, we will indeed face new mandated regulatory requirements. Let me explain. Under the proposed program, federal action agencies are required to consult with NMFS and to provide a written assessment as to how an agency action will effect EFH. Once NMFS has responded by providing the agency their determination and recommendation, the agency is required to reply (again in writing) as to whether or not they will follow NMFS's recommendation. This requirement

[1] For convenience sake, I will use the acronym "MSA" from now on.

will divert key federal agency staff from normal permitting and operational duties. Further, it is highly unlikely that these written responses by the agencies will be within the time limits established by the program. We do not know what effect this three part process will have on permits, but suspect that it will cause significant delays as the same staff which provided the assessment must justify their failure to meet the deadlines of the program. Meantime, permits and agency tasks languish. Further, if time lines are not met and recommendations are not followed, we are concerned that private parties will pursue litigation and even more permits and projects will be delayed.

We are also concerned that conflicts and disagreements between NMFS and federal agencies over consultation issues will undoubtedly arise. How will these be resolved? We do not know. But, we strongly believe that disagreement between NMFS and another agency will take time to settle, leading to additional permit delays and costs.

We also suspect that very soon NMFS, working with other agencies, will require that industry pay for the EFH impact assessments. NMFS has argued in its final interim rule that it will not impose new or additional enforceable duties on State, local, tribal or private sector entities that would constitute a federal mandate. This has been misleading. Let me explain why. The rule requires federal agencies to complete detailed EFH assessments for many private sector activities requiring federal permits or other authorization. The rule authorizes these agencies to designate a non-federal representative to prepare the assessment. This creates a problem in that federal-permitting agencies, not funded themselves to complete EFH assessments, will require nonfederal private applicants to pay for them in order to obtain needed permits. As we have learned under the Endangered Species Act, part of the cost of getting a permit is usually gathering information and research for the agency.

2. The Definition of EFH is Overly Broad

NMFS's final interim rule retains an extremely broad definition of "essential" fish habitat. The Regional Fishery Management Councils are mapping all existing and potentially historical habitat. When all habitat is covered under the program, the term "essential" becomes meaningless. The EFH designations should carry some measure of unique value, if they are to have any added benefit for protecting and restoring salmon populations and their essential habitats.

In contrast, NMFS has interpreted EFH in its regulations to cover not only the critically important essential habitat, but instead concluded the designation should cover *all* habitat necessary to a "healthy ecosystem." In other words, rather than isolating "essential" habitat as a subset of all habitat, NMFS designated "essential" the ecosystem within which the fish habitat is located. An overreaching interpretation indeed.

This interpretation means that NMFS will regulate activities occurring on inland waters. Once inland, NMFS unsurprisingly announced the need for "watershed" planning—not only would rivers, estuaries, and wetlands be covered, but also all areas that could impact those waters. Finally, NMFS determined that it was not enough to cover waters where fish currently are found, but also that EFH should cover areas where fish historically were found.

Rather than debate the definition in an academic manner, it is illustrative to review how the definition is being implemented by NMFS. The proposed EFH designations for salmon within the Pacific Fishery Council include the existing geographic range of all salmon species and much of their historical range.[2] These maps illustrate the broad brush used by the Fish Councils and NMFS in identifying EFH. Virtually every watershed within Washington State is included within the EFH designation. And, it is important to remember that the regulatory reach of the EFH program, as devised by NMFS, includes a review of not only the actions *within* designated EFH, but those activities outside EFH that "may adversely affect" EFH. A vast landscape of NMFS influence and control.

In addition to its definition of the word "essential" NMFS uses a very broad definition for the term "adverse effect". It is defined as "any impact that reduces quality and/or quantity of EFH." This includes any loss of prey or reduction in species fecundity. All activities *anywhere* are likely to have some "adverse effect" *somewhere* on EFH as that term is now defined. As best we can see, there is no limiting principle that would leave any activity outside of NMFS purview.

We find especially troubling the question of lost "prey." NMFS states that actions that reduce the availability of prey species or prey species habitat may be considered adverse effects on managed species and EFH. Since NMFS offers no corresponding requirement that the loss have some meaningful impact on the managed

[2] See attached maps [Contact the Master Builders Association].

fishery, the loss of a few prey or a whole population may qualify as an adverse effect. Thus, actions, which have little or no impact on truly essential habitat, may nonetheless be regulated under these provisions.

3. Information Used to Identify EFH

NMFS's interim final rule provides that data for identifying EFH should be obtained from the "best available information." The regional Fish Councils are to use logbooks and local knowledge in this identification. The information gathering procedures of both NMFS and the Councils ignore non-fishing entities that are not given a comparable role in providing information and shaping habitat identification and recommendations. Nonetheless, we will be significantly impacted by these regulations. The Council system is complex, cumbersome, and unresponsive to non-fishing interests and designed to promote the interests of the fishing community, not strike a balance between fishing and non-fishing sectors.

The possibility that historic habitat may be designated as EFH points out further problems with the EFH identification approach. Presence of a species, either historic or current, in an area does not mean that the species can survive or reproduce in that area. There should be some assurances that information will be developed to identify habitats that are truly essential—and not just potential or historic.

4. Consultation Provisions

NMFS has stated to the regulated community that it will strongly encourage the use of existing consultation and environmental review processes to satisfy the EFH requirement. By contrast, the interim final rule sets forth extremely stringent criteria for the consultation that does not take advantage of existing processes.

For example, as part of the stringent consultation rules, the regional Fish Councils have been given a role in determining whether general concurrences may be used when allowing public review of the concurrence. NMFS also hopes to develop agreements with the Councils to coordinate comments and recommendations on actions affecting EFH. Thus, through formal agreements with NMFS, the Councils will have a role in determining the end product of an EFH consultation. All of these changes make the consultation process even more difficult to deal with for non-fishing, regulated entities—and they vest improper power in the Councils.

As noted above, the homebuilders and other members of our coalition have little input into the way the Councils act. Indeed, they are heavily weighted to consider fishing interests. But, we will be subjected to the regulatory power of the Councils through NMFS's regulatory scheme. We do not believe this result was ever intended. Indeed, it is notable that when the EFH concept was being developed during the 1996 MSA reauthorization process, the views of the non-fishing sector were never solicited. Why? Because, quite obviously, Congress did not intend that inland interest groups be pulled into the program. But, NMFS has now expanded the EFH program so extensively that non-fishing interests are forced to become involved.

5. The EFH Assessment

NMFS has written that the EFH assessment must include an analysis of alternatives "particularly when an action is non-water dependent." Nothing in the terminology of the MSA, its legislative history, or case law suggests that the Act covers non-fishing, non-water dependent activities such as land development or construction activities, mining, timber harvesting, etc. This particularized burden on federal agencies to assess alternatives to non-water dependent actions is not only unauthorized, it is also without any basis in reason. Why is it more appropriate, in order to protect fish habitat, to consider alternatives to non-water dependent activities when certain fishing (i.e., water dependent) activities are acknowledged to contribute equally to EFH degradation?

There are numerous other problems with the consultation process. For example, the rule states that the purpose of the procedures is to "promote the protection of EFH." This standard of providing "protection" is found nowhere in the MSA. NMFS may request further review of any federal agency decision that is inconsistent with a NMFS EFH recommendation. There is no authority for this requirement. The acting agency need only respond in writing; NMFS cannot perpetuate the consultation process or mandate a result in this manner.

6. Duplicative and Redundant Provisions

Without a doubt, there are activities that threaten fish habitat that are causing fish populations to decline and affect commercial fisheries. These activities should be regulated to ensure that their impacts are minimized and mitigated. We, however, do not believe that land-based activities are causing a significant enough adverse impact to warrant the burdensome consultation process set forth in the EFH interim final rule. This is not to say that many land-based activities do not cause

deleterious environmental impacts. However, for the most part these impacts have been eradicated through the numerous federal, state, and local laws and regulations already in place. The environmental regulations established since 1970 have precluded significant direct, indirect, and cumulative impacts on all land, whether it is essential fish habitat or not. Most coastal states including Washington, California, Oregon have particularly stringent environmental protection laws at the state and local levels. And, all three states have comprehensive land planning and regulations protecting environmentally significant areas and lands.

Over the past two years, NAHB, as well as other Coalition members, have repeatedly asked the NMFS and the Fish Councils to identify the adverse impacts to those areas considered Essential Fish Habitat that are *not* already addressed by other regulations. Sediment and runoff, for example, which can be problematic for many fish species, is largely eliminated by the federal storm water program administered by the Environmental Protection Agency and local storm water management requirements. Consequently, NMFS's role in this heavily regulated area adds little because runoff and pollutant discharge issues are well defined, well regulated, and appropriately mitigated to the extent possible by existing federal, state and local agencies.

We are concerned that the EFH program, as described in the NMFS interim final regulations, already has grown into yet another regulatory impediment imposed by Congress on businesses as a condition to receiving a federal permit. A large variety of permits could be affected. The EFH regulations could delay or halt altogether building permits, timber permits, and other land-based activities in the Puget Sound region.

NMFS often states that the EFH program is a voluntary information gathering tool, yet it has promulgated a regulation that *requires* action agencies to prepare EFH assessments and undertake other *mandatory* measures and meet *mandatory* deadlines. Congress did not vest NMFS with the power to impose these duties on other agencies and, if the program is to be cooperative and voluntary as NMFS asserts, these requirements must be deleted and replaced with cooperative mechanisms. For example, Congress should direct NMFS to recast the program so that NMFS will provide helpful information about truly essential habitat for fish species of concern, allowing other agencies to consider that information in their own reviews of projects without formal requirements for EFH assessments and consultations.

Without this Congressional direction, there will undoubtedly be permitting delays. The cost of getting permits will increase—due to delays, due to the need to undertake consultation and prepare EFH assessments, due to the inevitable slippage in deadlines that cover the federal agencies, and due to the cost of complying with EFH restrictions. Permits are likely to be subject to new restrictions. In some cases, permits for activities are likely to be denied. And keep in mind, these are not restrictions for species in danger of extinction, they are restrictions to protect the habitat of all fished species, no matter how plentiful or widely dispersed.

7. Lack of Information

This Committee and the public must be given sufficient information about these consultations to evaluate the implementation of the EFH program to date. The following information should be provided by NMFS so that the American public and Congress are enabled some level of meaningful review of EFH consultations to date:

(a) The number of consultations completed, by NMFS Region;

(b) The average time taken to complete a consultation, and the range and distribution of time taken for each consultation around that average;

(c) The average cost of each consultation, in dollars and person-hours or full time equivalents ("FTEs"), and the range and distribution of the costs of each consultation around that average;

(d) The distribution and amount of that cost among NMFS, action agencies, third party applicants for federal authorizations, and others;

(e) The number of consultations in each category described under the interim final rule: national general concurrences; regional general concurrences; abbreviated, expanded, extended, and supplemental consultations; and separately the number of programmatic versus project-specific consultations;

(f) The number of documented "no effect" determinations by action agencies, the number of these with which NMFS concurred/did not concur, and the number of these for which an EFH consultation was nevertheless completed;

(g) The number of consultations involving federal actions for which ESA consultation was also completed, and the number of these which involved ESA consultation with NMFS;

(h) The number of consultations involving federal actions for which the National Environmental Protection Act (NEPA) documentation was also completed,

and the category of NEPA documentation completed (e.g., Environment Assessment or Environment Impact Statement);

(i) The number of consultations involving other environmental analysis documentation besides an EFH assessment, and the number of these for which the environmental documentation prepared for other purposes also served as the EFH assessment, without modification to meet EFH consultation requirements;

(j) Other information about how EFH consultation was consolidated or integrated with procedures such as NEPA, ESA, Federal Power Act licensing procedures, and Coastal Zone Management Act regulations for individual or collective actions;

(k) Categories of activities for which EFH consultations were completed, including the basic categories of fishing and nonfishing, more specific federal action categories such as Clean Water Act Section 404 permits and Federal Energy Regulatory Commission power facility licensing or relicensing, and more specific types of activities, such as timber sales, road projects, marina developments, oil and gas drilling, hardrock mineral extraction, housing subdivisions, agricultural water diversions, and so on;

(l) How many EFH consultations have been initiated, but not yet completed, and how long they have been pending; and

(m) The categories and representative examples of recommendations made by NMFS in consultations, action agency disagreements with such recommendations, and how these differences were resolved.

We ask that this Committee request NMFS to compile this kind of information in a format that facilitates understanding of the EFH consultations which have occurred so far and that enables constructive further comment.

Conclusion

The non-fishing sector does not oppose the EFH concept. Indeed, we address these concerns regularly. However, we believe the actions set forth in the EFH provisions are duplicative and redundant and we seriously question the cost/benefit of this program. Even NMFS has said that of the 2000 consultation to date, most were already covered by some other environmental review. NMFS has also said that they strongly encourage the use of existing consultation and environmental review processes to satisfy the EFH requirements, yet the rule sets forth extremely stringent criteria for the use of any such process.

When asked why the EFH definition is so broad that it now includes almost the entire coastline of the United States, and substantial upland habitats, NMFS points to the lack of guidance it received from Congress. The 1996 Amendments, NMFS asserts, established a broad and vague definition of the term. So NMFS moved in, filling what they perceived as the void. It is important that Congress clearly define the EFH provisions when it reauthorizes the Magnuson-Stevens Act this year. Congress should also assist the American people by halting implementation of the EFH program until more guidance can be provided in the Act itself. Our coalition is, has been, and continues to be engaged with NMFS and Congress in a discussion on how this program should work and where we might help.

Thank you for your time today and consideration of our concerns.

Senator SNOWE. Thank you, Mr. Anderson. I will start with you.

Do you have any examples of how the EFH process has directly affected your constituency and the industries that you represent?

Mr. SAM ANDERSON. I do not in this region, but I can provide you some through the National Association of Home Builders.

Senator SNOWE. Do you know of any specific examples anywhere in this country where this has had a negative impact?

Mr. SAM ANDERSON. I have not personally been involved in them, but I have been told by the National Association that it has.

Senator SNOWE. We have been getting testimony from others who represent non-fishing interests. Did you ever think non-fishing interests were intended to be covered by this designation?

Mr. SAM ANDERSON. No, we did not. What I find interesting in it is that about a year and a half ago, this came to light. And we focused a lot of our attention in the building industry out here on the Endangered Species Act and the listing of the chinook, and all of a sudden, out of the blue, came the essential fish habitat provi-

sions that nobody thought we had anything to do with essential fish habitat, fish management, or the Pacific Fisheries Council or any of this other stuff.

Then, the next thing we know, in the building business, suddenly there is a potential that our permitting activities will be regulated through essential fish habitat and the designation of significant inland waterways as essential fish habitat. No, we were not prepared.

Senator SNOWE. So you see it as another bureaucratic impediment and overlay in the process?

Mr. SAM ANDERSON. Yes, we do.

Senator SNOWE. It was intended to be a consultation process, but that has become another matter. You believe it may be too restrictive?

Mr. SAM ANDERSON. That is correct.

Senator SNOWE. You believe the process causes delays and complicates decisionmaking on federally permitted projects.

Dr. Fujita, can you tell me, are you satisfied with the current provisions of essential fish habitat? You believe they should be broad, is that correct?

Dr. FUJITA. That is right, Senator Snowe.

Senator SNOWE. You do not see any problems in the way that it is being interpreted at this point? I would like to have Dr. Sampson and Mr. Leipzig also comment on this issue. We have heard considerable testimony from various witnesses at other hearings about the broad interpretation of the essential fish habitat provisions what was truly originally intended by EFH is more similar to how the more narrow habitat areas of particular concern are currently being defined.

Would you agree that there are some problems with the overly broad interpretation of the essential fish habitat provisions? We have even found that the entire Gulf of Maine and the entire EEZ have been designated as EFH. Do you think that such a broad designation was truly intended by the original definition?

Dr. FUJITA. I do not question the concerns of stakeholders who feel that the EFH provisions have been overly interpreted or too broadly interpreted. I am sure there are problems on the ground. I am not aware of any in my region, in the Bay Delta. EFH is not complicating the Bay Delta process to restore salmon habitat. But, again, I am not going to question those people who do have problems.

What I would say is that the narrow interpretation of Federal and State laws that protect the environment, the Balkanization of those laws and jurisdictions, has been a major cause of habitat fragmentation and is one of the reasons we are in the state we are in today with respect to salmon and, I think in the future, with respect to marine habitat, if we do not get our act together. The fact that water and forests and riparian areas, flood plains, and fish were all under different jurisdictions is one reason that the ecosystem has collapsed.

There has been a great need, and it has been brought to the attention of management agencies and the Federal Government for years by ecosystem scientists, for what we call an ecosystem approach, in which the jurisdictions are swept aside and natural sys-

tems, or rather human impacts on natural systems, are managed with respect to ecosystem boundaries, not Federal agency jurisdictions.

EFH is a first step in that direction. Because of its broad definition, it enables NMFS to act as a coordinating agent and bring together these disparate, well-intentioned though they may be, but disparate efforts. Coordination is the key here. And because it is a consultative process, I do not see any inherent problem with that broad definition. I think it is very helpful.

Now, as Will Stelle said before with respect to ESA consultations, that is a different matter, because you are talking about a big hammer and strong regulations that can cause a lot of economic dislocation. But EFH need not be that way and, in my view, it is not being implemented or interpreted that way.

Senator SNOWE. Dr. Sampson, you have a different point of view. Do you think it is possible to narrow the definition, making a distinction between essential and nonessential fish habitats, and defining that in law without impairing the conservation goals?

Dr. SAMPSON. I work primarily with the groundfish species off the west coast here. And with most of those species, they are very wide ranging and their different life stages have very different requirements that essentially encompass the entire EEZ. So it is hard for me to see how you could define it except in very broad terms because of the requirements of these groundfish species.

It is a different issue with salmon, where there clearly are terrestrial concerns that are well-defined in space and time. With many of the marine organisms, though, I do not think that works.

Senator SNOWE. Mr. Leipzig.

Mr. LEIPZIG. I cannot add much. My involvement is also with groundfish. And so I echo Dr. Sampson's comments.

This is also an area that we have not, in the Pacific Council, with the groundfish issue, really delved in deeply. We have gone through the process of identifying essential fish habitat, which is everything that is wet and salty. It covers a broad area. There are certainly very site-specific areas that should be very much of concern for certain species, where they tend to aggregate for spawning purposes or where the juveniles may live.

But, as Dr. Sampson points out, many of these fish, through their life stages, will be covering a broad area. Many of them will be pelagic for many, many months, covering the entire ocean surface, until they settle out to the bottom. So it is hard to know.

Senator SNOWE. Dr. Sampson, you spoke extensively about the quality of stock assessments and scientific data. What is the one thing you think we should do to improve the quality of data? Is it money? Does it simply come down to providing enough resources to fund the scientific data?

Dr. SAMPSON. Certainly we do not have very good data. And we do not have the long-term data series that you really need to do things the way we have currently structured the system. There are many types of data that are needed, and it is hard to say exactly what the best way of going about providing that data would be. I think we could do a lot more to explore how we could improve the quality of our assessments from some relatively inexpensive com-

puter modelling exercises, where we improved this type of data versus some other type of data, to see what type of gains we make.

We have not engaged in very much of that at all. Instead, we have taken a very hit-or-miss approach to providing this bit of information here, providing some other bit of information there, without looking comprehensively at what causes a stock assessment to be imprecise.

But one message that I think is very important is that even with very good data, we are not going to necessarily get it right. And there are many examples of that in fisheries science. So I think throwing money and collecting more data is not going to fix what fundamentally is a problem of allocation and too many fishermen chasing a limited number of fish.

Senator SNOWE. Dr. Fujita, would you care to comment?

Dr. FUJITA. Sure, thank you, Madam Chair.

Money is going to help, but it needs to be well spent. And certainly research out here on the west coast has been grossly mismatched to the research need and the scientific enterprise that is required. I think that there are ways to leverage that money. If we got more money to spend on research out here, we could leverage it in many ways. One is through cooperative research with fishermen, using fishing vessels as research platforms. I think that the NMFS science team out here is making great strides in opening that field up. And I think fishermen are enthusiastic about that.

So it does two things. It puts a lot more eyes and ears out there on the water collecting data in a scientifically credible way. And it also increases the credibility of the science I think, because the fishermen themselves are engaged in cooperative factfinding.

Another way to do it is to engage academic scientists and the graduate students and post-docs more effectively. Being a former graduate student, I know that is an extremely cost-effective way to do research. It may violate some slave labor laws, but it is a good way to get science done cheaply.

[Laughter.]

And, third, I think that there has been a lot of emphasis on data acquisition here. I do not think that is the only answer, to do surveys all over the place with a big vessel that cannot even sample rock piles where the rockfish live because the net snags. That is not the most effective way to do research. It will help, but it is not the only way to do it. And submersibles are, I think, a smart way to go.

Also there are some theoretical problems in the basic theory of marine ecology and how fish work that remain mysterious. I think things like the National Center for Ecological Analysis and Synthesis that the National Science Foundation is funding are really important. Those issues may seem far removed from our problems here, but one of the reasons why we got into this mess is that we did not understand the basic mechanisms that produce fish and how they interact with each other. We did not know enough about the life histories of these things. Those are basic scientific questions, and if we do not start to answer them, we are just going to perpetuate this problem.

Senator SNOWE. Thank you.

Senator Gorton.

Senator GORTON. Dr. Sampson, I have a variant on one of Senator Snowe's questions with respect to stock assessments. And you say, and I think I am quoting from your testimony, "the harvest quota system that has developed as a result of the 1996 Sustainable Fisheries Act is unrealistically complicated given the level of accuracy that we can reasonably expect from stock assessments, and that we need to develop fishery control systems that have simple data requirements and to deal with data errors."

Now, is that advice to us to amend the Act or advice to fisheries Councils to change the way in which they do business? With the three Senators here having to change the Act, do you have a specific change in the Act that you would recommend in order to reach that goal that you outlined?

Dr. SAMPSON. I think my comment there was specifically directed at the guidelines produced by the National Marine Fisheries Service with regard to the 1996 amendment. And their interpretation of what is required for controlling harvest is what I was complaining about. I think it has very unrealistic expectations about what we can and cannot say about the size of fish stocks.

Senator GORTON. Well, then, unless you think, I think rather unrealistically, that the National Marine Fisheries Service is going to listen to you, would you have a specific recommendation to us in the way we instruct the National Marine Fisheries Service in the statute in order to reach that goal?

Dr. SAMPSON. I am afraid I do not have a good answer. I think the original SFA was probably appropriate in general, but it was interpreted very narrowly. And I think that is what has caused some problems.

Senator GORTON. Well, personally, I think you are probably onto something. If you would think seriously about what we might go through in the next few months to help you reach that goal and communicate those thoughts with us, it may be of real help. Otherwise, this is rather purely academic.

Mr. Sam Anderson, for you and for this new and rather sudden and unexpected set of challenges, let me sort out some of the concerns that you have. Rank in order, if you will, or give me a couple of brief comments on it. Do you think too much water has been defined as essential fish habitat or are you primarily concerned with the effect of that broad designation on activities on land? That is number one.

Just the designation, should the geographical designations be much smaller than they are on the map that you showed us there? Or is your primary concern with what the consequences of the designation are? And is it your feeling that the National Marine Fisheries Service is demanding too much and, therefore, is going to have an adverse impact on the way in which you create housing or any other kind of human development?

Mr. SAM ANDERSON. It is actually both. The first one, what concerns us is they have so broadened the term "essential" as to be almost all. Anything that is relevant or significant in the ecosystem as it relates to salmon, we are going to call it essential. So we have just wrapped our arms around everything. That is why you see all of these counties in just about every watershed west of the Cascades is now defined as essential habitat, or anything that may af-

fect the essential habitat. So they brought all of that in. They cast a—pardon the pun—but a fairly wide net, and just hauled in everything they could as essential.

Why that bothers us is that now, all of a sudden, we have this superimposed Federal overlay of a consultation process. And frankly, from our perspective, if it is anything like the Section 7 consultation processes that are going on now—now, granted, there is a difference in the ESA—but they cannot process anything. The National Marine Fisheries Service in this region has a very difficult time consulting with anyone.

They do not have the people to do it, to get road projects out now in the Puget Sound, King County, for example, and Washington Department of Transportation have had to give them bodies to get through this. So just to work your way through the mechanisms of a consultation, a required and mandated consultation process around here, in the context of the Endangered Species Act is extremely difficult.

If you expand this now, sort of, not quite voluntary, mandated consultation and you hang up our permits until somehow NMFS gets through it, talks to the agency, has a right to respond, comes back, makes more recommendations, our feeling is that we are going to be waiting a long time to get some of these permits back.

Senator GORTON. It does sound to me like it is the second rather than the first. I take it the broad designation of habitat, along the recommendations of Dr. Fujita, that it would be an entire ecosystem thing, would be less burdensome if the mandates were fewer and it were a more truly voluntary consultation?

Mr. SAM ANDERSON. I think that is true, Senator.

Senator GORTON. And if great deference were given to the traditional land use authorities and their decisions?

Mr. SAM ANDERSON. That is true, yes.

Senator GORTON. Do you think there are going to be many consultations, the way they are setting it up now, required under the endangered fisheries habitat that are not required under the Endangered Species Act?

Mr. SAM ANDERSON. Yes. Because they have covered all salmon, not just listed.

Senator GORTON. So it is not pure duplication; they are going to be just a lot more?

Mr. SAM ANDERSON. Yes, I believe that.

Senator GORTON. Thank you.

Thank you, Madam Chair.

Senator SNOWE. Thank you.

Senator Stevens.

Senator STEVENS. I am concerned, Mr. Anderson, about the interaction of the coastal zone management concept, the National Environmental Protection Act and the Endangered Species Act and now the essential fish habitat. It does seem to me that there ought to be some jurisdictional difference there. NEPA requires a review for all significant Federal actions. And the coastal zone management is really designed to give the coastal communities tools to use in planning, as far as land development was concerned, in order to protect the coastal zone, which was in effect to protect the resources of the oceans.

I do not know how to get a hold of this, but it does seem to me that we ought to find some way to determine who is in charge of the shop now. Ms. Dalton mentioned that there is going to be one-stop shopping. But when I want a screwdriver, I do not go to a supermarket. And really, when I want some fresh orange juice, I do not go to a hardware store.

I really think we have got to define this down somewhere and decide who is in charge, and stop this redundant consultation concept that is going to be very expensive for these Federal agencies. And as I said in Anchorage, I think we are going to be spending money in consultations that we ought to be spending to protect resources. So I think you have got a point. But I do not know how we are going to get to it. And it is another reason why some of these people who say, tell us by April that you are going to pass this bill by October, had better get busy. Because if your association is opposed to this bill, it is not going to pass by October.

Thank you.

Senator SNOWE. On that positive note, we thank you very much.

Now the final segment of this hearing is known as the open microphone session. If anybody desires to make a comment with respect to the issues that were discussed here today, you can sign up with Senator Gorton's staff if you have not done so already.

Senator Gorton's staff is going to read off the names. We will allow two minutes each for the 15 people who have signed up. We will begin.

Mr. SCHROETER. The first speaker is Jan Standaert. And then, next up is Jude Henzler.

STATEMENT OF JAN STANDAERT, CREWMAN AND SKIPPER, DEEP SEA FISHERMEN'S UNION

Mr. STANDAERT. Hello. Thank you for coming and inviting us to testify. My name is Jan Standaert. I am with the Deep Sea Fishermen's Union. I have been a crewman and a skipper over the last 25 years. I have not owned a vessel. The whole time has been spent on the deck.

I would like to say thanks again for inviting us. And I agree with all of what Tim Henkel said. For years now, the crewmen has been considered ancillary to the operation. And with the passage of IFQ's, we have even, as Tim suggested, become more ancillary.

One problem I have is that in the decisionmaking of the Council process, crewmen have not been considered as being part of the decisionmaking. I can recall a number of boat owners who have been on the Council, but not one crewmen has been considered to be a part of the Council.

I think that in the near future it will be imperative that crewmen be used in the consideration, since in Alaska, for example, in the future, most of the quota I believe will be owned by crewmen, at least under the current rules. And current rules are where a corporation cannot own second-generation IFQ's and the owner of IFQ's has to be aboard a vessel. I believe that most of the IFQ's will be in the ownership of labor. And I think they need to be on the Council in order to make those important decisions that will affect them.

That brings me to defend the crewmen in view of corporations wanting to come in and own IFQ's. During the early days of figuring out IFQ's in Alaska, crewmen got together and were very emphatic about the corporations cannot own IFQ's, the major reason being that we will be competing with big money. And that is very difficult for a lot of us crewmen.

I see the red light is on, so thank you.

Senator SNOWE. Thank you very much.

Mr. SCHROETER. And then Jude Henzler, and then next up would be Paul MacGregor.

Mr. MACGREGOR. I am going to pass.

Mr. SCHROETER. Okay. Then Laura Deach.

STATEMENT OF JUDE HENZLER, EXECUTIVE DIRECTOR, BERING SEA FISHERMEN'S ASSOCIATION

Mr. HENZLER. Thank you, Madam Chairman. My name is Jude Henzler, and I am the Executive Director of the nonprofit corporation Bering Sea Fishermen's Association. Our main membership consists of small boat fishermen and women, principally Alaska Natives from the Arctic and Yukon and Koskoquin River regions of Alaska. Our office is located in Anchorage, Alaska.

I should stop and explain that my oldest daughter is a firefighter for the City of San Jose, and I am obliged to wear this jacket. I just came from a visit with her.

I wanted to talk to you today about the two things regarding data acquisition in congressionally sponsored fishery programs. The first thing is to inform you of one of the things that we are doing with some special congressional funding at BSFA. We think it is valuable and we want to make sure you are aware of it.

Congress last reauthorized the Magnuson-Stevens Act in September 1996, and included in that reauthorization the adoption of the Western Alaska CDQ program, and at the same time mandated a review and evaluation of that unique Alaska program by the National Academy of Sciences. The Academy accomplished this task last year, and its members concluded in its report:

"More than any previous welfare or development initiative, more even than the Native corporations, the CDQ program seems to offer a viable way for local people to gain control over the means by which they are articulated to the larger economy and society."

I point to the fact that in the above quote, the Academy members say these fine things about the CDQ program, but at the same time use the flaccid verb "seems" to deliver the good news. What else could they do, though, for there are no hard data to support the evidence of their eyes and their experience, which instruct them that the CDQ program really is a good thing?

I will cut to the chase here with the red light. Our funding is going to end in August. I just hope that you realize that a data base which we have established and started is the only way you are really going to be measuring whether the CDQ program is working. I do not know who would continue that work. I would hope it is us, but we do not have the funding. I hope that you will hear the good word and I will start an itch and you will figure out some way to scratch it.

Thank you.

Senator SNOWE. Thank you.

Mr. SCHROETER. Laura Deach, and then Mark Powell.

STATEMENT OF LAURA DEACH, WEST COAST LONGLINER

Ms. DEACH. Madam Chairman, my name is Laura Deach, and I longline off the Washington coast with my husband, primarily in the sablefish fisheries. I have sat on the Pacific Fishery Management Council individual quota, the three tier and the buyback committees. I am one of the 26 percent of the fixed-gear sablefish fleet off this coast that is supposed to be able to catch their quota every year. And I despise the derbies that I have had to suffer through for nine years.

I believe that the number one problem on this coast is overcapitalization and the management tools that have been used, including gear restrictions, time closures, license limitation or limited entry, buyback programs, and trip limits. They either lack the capacity to reduce overcapitalization or they have failed.

I believe that individual quotas can get to the problem of overcapitalization by allowing one fisherman to purchase another fisherman out. As such, it is a personal buyback program.

Mr. Stevens, I would dearly love to pay for my fishery if I had a fishery anymore. But I do not, basically. We are reduced to catching about one-sixth of what we caught 10 years ago. In 1991, I and several other people requested from the Pacific Council an individual quota program that has never been allowed to be enacted.

I wonder where the concern is for the windfall profit of limited entry programs. The initial windfall was generated when they gave licenses on this coast. Senator Snowe, I appreciate your concern for the economic disaster that has fallen on the west coast, but I think you people totally lack sometimes the emotional or mental disaster that is also created. I loved my fishery. I loved fishing. And I mourn it now like a dead lover.

Thank you.

Senator SNOWE. Thank you.

Mr. SCHROETER. Mark Powell, and then Mark Lundsten.

STATEMENT OF MARK POWELL, MARINE BIOLOGIST, CENTER FOR MARINE CONSERVATION

Mr. POWELL. Thank you, Madam Chair, Senators, staff, and panel members. My name is Mark Powell. I am a marine biologist, and I represent the Center for Marine Conservation. We support the reauthorization goals of the Marine Fish Conservation Network. A strong and effective Magnuson-Stevens Act will rebuild depleted fish populations and rebuild depressed fisheries.

It took a long time to reach the state we are in, with fish and fishers hurting. It will take some time to get to recovery. While dislocation of fishers is a serious problem that deserves a response, continued overfishing of depleted stocks is not that viable response.

The key elements of a strong Act are reducing overfishing, reducing bycatch and reducing the habitat damage caused by fishing. Regarding damage to fish habitat caused by fishing, this is an important part of the Act that has not been well implemented. Almost nothing has been done to reduce habitat damage caused by fishing

gear, such as destruction of bottom habitats by trawling and other gear. Scientific studies have shown the value of structure as cover for young fish.

Habitat damage may be a partial cause of observed core survival of young fish, a problem usually blamed on natural conditions. This issue is best addressed through the creation of no-take marine reserves, which would allow habitat recovery in some areas. Reserves would be good for fish and would provide unimpacted areas for study.

Regarding the lack of data, the ocean is variable and is hard to study. It is unlikely we will ever be able to acquire detailed knowledge of all the elements in current models. We need to focus on scientific principles that we do understand. We need to establish protected areas to provide safe havens, where fish are unimpacted by overfishing and habitat damage. Then fish can survive natural fluctuations that they have for millions of years and we will have a better opportunity to understand which exactly are the human impacts.

Thank you.

Senator SNOWE. Thank you.

Next.

Mr. SCHROETER. Mark Lundsten, and then Stephen Taufen.

STATEMENT OF MARK LUNDSTEN, OWNER-OPERATOR OF AN ALASKAN LONGLINER

Mr. LUNDSTEN. My name is Mark Lundsten. I own and operate a 70-foot longliner in Alaska and off the coast and I fish for a living on my boat. I am an original recipient of an original allocation of black cod and sablefish and halibut IFQ's.

I would like to make a point about the fees and about consolidation. First, about the fees, I think that, like our fishery, other fisheries should support themselves, should be self-sustaining. IFQ's raise the value of our resource to such a level that the increase in funds to the U.S. Treasury just from income taxes from fishermen and so on more than offset the cost of the program by many times. Now we also have a 3 percent fee which will more than cover our fees. And it is also funding a program for loans to small operators and crew members which has been spoken of quite a bit.

So I would suggest that to fill the lack of money for scientific surveys and so on, you charge everyone a 3 percent fee across the board, across the Nation, for all fisheries that can afford it, that are not distressed. When you do that, you will have an investment of the users into the science and it will promote interaction between the scientists and the fleet, which is probably the main impediment to good science these days, especially, as I hear it, on the west coast and in New England.

The other point I would like to make is just about consolidation. You have heard a lot about overcapacity. We suffered from it horribly in Alaska. The way you solve overcapacity is you reduce capacity. When you reduce capacity, you, of necessity, consolidate. We have done that. Not doing that is the true path to marginalization and poverty among fishermen.

If you have a child who is going fishing, you would rather have them on a boat that is not one of those marginalized, impoverished

boats. You want them to go out, especially in the Gulf of Alaska or the Bering Sea, on a boat that is well-maintained, well taken care of, with good safety procedures and all the equipment it needs to be safe at sea. That is what you get when you get a reasonably consolidated fishery.

There is only so much product in the ocean you can take out and process and make money on. And if you try to spread that out too thin, it is not going to work. That fish can only support so many reasonable jobs.

Thank you.

Senator SNOWE. Thank you.

Mr. SCHROETER. Stephen Taufen, Edward Paulsen.

STATEMENT OF STEPHEN TAUFEN, GROUNDSWELL FISHERIES MOVEMENT

Mr. TAUFEN. I gave the clerk the two-page item for you.

Madam Chair and fellow taxpayer-paid Senators, my name is Stephen Taufen, of the Groundswell Fisheries Movement. Let us cut to the real chase. The most important issue listed in the Congressional Research Service report on the reauthorization of the Magnuson-Stevens Act is transfer pricing, the tax cheating by foreign-controlled corporations in the United States fisheries of the North Pacific.

In 1993, in self-defense, I became a Federal whistleblower at the Internal Revenue Service on this issue. By 1997, the International Branch, in Seattle, had formed a seafood specialty group to delve further into this problem. During 1997 through 1999, I have lobbied the North Pacific Council, its advisory and scientific panels on these issues. Many of you are familiar with my writing in the industry press.

Senator Gorton, as a Washington State representative, please note there is also a Board of Accounting case still pending here, where CPA's could be looked at further for their role as certified public accomplices.

You wonder how you are going to pay for fisheries management and research costs and disaster assistance. Well, I say enforce the tax laws against foreign-controlled corporations. The IRS cannot do it alone. In 1979, abusive transfer pricing was predicted in a Pacific Rim study on fisheries investment to become the largest problem. For over two decades, we have seen the abuse of creative accounting by foreign-controlled corporations in the North Pacific. In 1992, President Clinton ran for office on this issue of over-invoiced imports and under-invoiced exports. In 1993, the House Ways and Means Committee on Tax Oversight, known as the Pickle Commission, dealt with it.

The General Accounting Office has produced several reports, 95–101 and 99–39. Overcapitalization is relative to the dollars returned. We have not Americanized this fishery until we have effectively dealt with the second-tier legislation on the economic issues and looked at abusive transfer pricing and the problems of foreign ownership and what it has meant in this fishery.

Madam Chair, please see that this issue is adequately covered and that effective action is taken.

Thank you.

[The prepared statement of Mr. Taufen follows:]

PREPARED STATEMENT OF STEPHEN TAUFEN, GROUNDSWELL FISHERIES MOVEMENT

The Congressional Research Service report #RL30215 on "The Magnuson-Stevens Fishery Conservation and Management Act: Reauthorization Issues for the 106th Congress" includes the issue of (ABUSIVE) TRANSFER PRICING.

[*Excerpt from Draft Version, believed to be on page 34 in final draft.*]

Transfer Pricing

"Commercial fishing interests are concerned about transfer pricing, especially in North Pacific fisheries. This is not currently addressed in the MSFCMA. 'Transfer price' is the price charged by one company to a related company, when they allocate income and expenses among themselves. These 'intrafirm transfers' are covered under IRS tax code section 482. Some U.S. fishing companies allegedly are not properly reflecting income attributable to their operations within the United States, while some foreign parent companies may be using pricing strategies to avoid higher U.S. taxes. In addressing 'abusive' transfer pricing, Congress could consider amending the MSFCMA to require full disclosure of all financial documents and transfer pricing criteria to U.S. authorities."

Groundswell believes that Congress should enact specific legislation in the Magnuson-Stevens Fishery Act Reauthorization bill to enable increased "Accountability and Transparency" on this issue.

- Fund a new review of the effects of FOREIGN OWNERSHIP and its extended problems, including WHO NOW OWNS WHAT COMPANIES AND VESSELS (including closely-held shoreside vessels), TRANSFER PRICING ABUSES, ANTITRUST CONSIDERATIONS in the US seafood industry, specifically in North Pacific Fisheries.
- Request/fund a GENERAL ACCOUNTING OFFICE (GAO) REVIEW OF ABUSIVE TRANSFER PRICING in Fisheries of the North Pacific, and of CONFLICTS OF INTEREST on National Fishery Councils.
- Legislate document and other accessibility clauses that allow the Council and others to find out what has been going on with Foreign-Controlled Corporations and their true level of profitability, i.e. increase "accountability and transparency".

Background:

Transfer Prices—controlled exchange prices between related affiliates whenever they allocate income and expenses among themselves, often in international transactions—are different than Arm's Length Prices. The latter are what the price would have been if the sales or services were between unrelated parties which literally stand "at arm's length" from each other. The latter are often known as "comparable, uncontrolled prices" (CUP).

In the North Pacific seafood industry, one of the major problems has been widespread abuse of IRS tax codes (e.g. § 482 on Transfer Pricing, § 263A on capitalized costs, and § 451–454 on inventories, etc.), primarily by foreign-controlled corporations (FCC). In large part, this has been by shoreside, Japanese-corporately-owned fishing subsidiaries and their overseas parent firms. These transnational firms do not operate in a "free trade" environment. Rather, they are insulated from open market forces by their economic structures, akin to bureacratic enterprises such as state trading enterprises, which can avoid arm's length prices altogether, or can exercise monopolistic powers.

Abusive transfer pricing, or "over-invoiced imports and under-invoiced exports", (also known as "product laundering") accounts for an estimated direct economic loss of over $200 million each year in North Pacific fisheries. It dovetails with the problems of antitrust (restraint of trade and price-fixing). For pollock alone, the effect in one decade, when including economic multiplier effects, was to take over $2.15 billion away from US fishers and their communities and suppliers, and tax coffers.

It is imperative that Congress considers its effects within legislation specifically addressing the industry-segment of fisheries. (President Reagan asked Michael Porter of Harvard to address issues of National Competitiveness and Porter concluded that it is within the industry segment that competition is won. Certain nations become the hosts for firms that dominate industries.)

The Groundswell Fisheries Movement has lobbied to present these concerns as part of the Reauthorization issues. This follows up on efforts before the North Pacific Fisheries Management Council over the past three years concerning pollock allocations and other issues. The industry Advisory Panel voted in April of 1998 on this issue, advising the Council to consider its effects on markets and grounds prices etc.

The Council has been torn by conflicts-of-interest which include foreign "agents of influence" and has failed to take an adequate look at this problem and the extended concerns in the antitrust arena.

Additional information can be obtained by contacting me through the Internet by e-mailing *staufen@seanet.com.* In addition, I have a paper on "WTO and Fisheries: An Issue of 'Accountability and Transparency'" posted at the *www.wtowatch.org* site, under the Documents tab, under issues such as Agriculture or Business and Industry. It is from a panel presentation at the University of Washington's School of Marine Affairs in October of 1998.

Senator SNOWE. Thank you.

Mr. SCHROETER. Edward Paulsen, and then Chris Doumit.

STATEMENT OF EDWARD PAULSEN, PAULSEN FISHERIES

Mr. PAULSEN. My name is Edward Paulsen, and I represent three Bering Sea crab fishing vessels and have fished on these vessels.

The crab industry is now facing an economic disaster, and it is likely that a third to half of the vessels involved in the Bering Sea crab fisheries will not be able to stay in business over the next few years. And there is no relief in sight for the industry. There is simply too much capacity.

I support both John Yanni's comments and Arnie Thompson's comments, whom you heard from yesterday in Anchorage regarding buybacks. I recently graduated from the School of Marine Affairs at the University of Washington, and finished a thesis on the feasibility of buybacks for the crab industry. I found that a $60 million buyback, which at that time could have been industry funded because the industry had not collapsed yet, but a $60 million buyback was possible and was beneficial for the industry. At this point, it seems like a minimum of $60 million is necessary, and it is unlikely that the industry itself can support such a buyback, at least in the near term, over the next few years.

However, the greatest priority for the crab industry is an individual quota-based system, such as co-ops or ITQ's. Individual quotas are necessary in the crab industry for two reasons, for both safety and conservation reasons.

I see the red light.

Senator SNOWE. Are you finished?

Mr. PAULSEN. I wanted to also say we have heard a lot about the safety reasons of ITQ's or co-ops. But there is a big conservation reason for co-ops in the crab industry, because it slows the race for fish down and it allows the fishing gear to actually do its job and minimize bycatch. That is the one industry where you really can minimize bycatch by slowing the fishery down.

Senator SNOWE. Thank you.

Mr. SCHROETER. Chris Doumit, and then Todd Hiner.

STATEMENT OF CHRIS DOUMIT, WASHINGTON COAST CRAB FISHERMAN AND COMMISSIONER, COLUMBIA RIVER CRAB FISHERMEN'S ASSOCIATION, ON BEHALF OF CHAIRMAN DALE BEASLEY

Mr. DOUMIT. Madam Chair and Committee, my name is Chris Doumit. I am a Washington Coast crab fisherman and a Commissioner with the Columbia River Crab Fishermen's Association. I also gill net in Bristol Bay, Alaska, and we tender in Bristol Bay, Alaska, as well as the South Peninsula.

I am here today basically as a courier for our chairman of the Columbia River Crab Fishermen's Association, Dale Beaseley, and he has got a written commentary. I am not going to read his comments, although I agree with it. It is on sound science and data collection that was covered earlier.

I just want to make sure it is part of the record.

Senator SNOWE. It will be included as part of the record.

[The prepared statement of Mr. Beaseley follows:]

PREPARED STATEMENT OF DALE BEASELEY, COMMISSIONER, COLUMBIA RIVER CRAB FISHERMEN'S ASSOCIATION

My name is Dale Beasley. I am commissioner of the Columbia River Crab Fisherman's Association (CRCFA) thirty-five year commercial fisherman, and strong advocate for a healthy marine environment. Thank you for the opportunity to appear before you today and welcome to Seattle, Washington.

My testimony today will address four issues of the Act: l)sound science, 2) Essential Fish Habitat, 3)cumulative effects on mans' intervention into the ocean, and 4) extended state management jurisdiction of the Dungeness crab fishery off Washington, Oregon, and California.

Sound Science

The Act recognizes that collection of reliable data is essential to the effective conservation, management and scientific understanding of the fishery resources of the United States, however, this is the biggest challenge facing the Councils, NMFS, and the states. Developing measures to eliminate over-fishing is relatively easy. Determining whether a fish stock is overfished or if over-fishing is occurring is not so easy. Many years of data are required to adequately determine the status of a fish stock and to evaluate the effects of management measures. Although data collection efforts over the years have improved through state and federal cooperation and fisherman involvement we are far from where we should be. The Act specifies that conservation and management measures shall be based on "**the best scientific information available**". Although this may appear to he a high standard, in practice is difficult if not impossible to achieve. Standards of data collection need to be developed that adequately protect marine habitat and resources from anthropogenic adverse invasive impacts. The greatest threat to our ocean resources is our own ignorance.

A good example of recent failure in data collection for protection of habitat is in the new deep water dredge disposal site at the Mouth of the Columbia River. The final environmental impact statement related to this site does not require any biological monitoring until 50% of the site is buried by several feet of sediment in a two year time frame. Do to the excessive size of the site and the projected quantities of dredge material anticipated for the site, biological monitoring will never be required. Precious, unique, and irreplaceable aquatic environment will be irreparably damaged and removed from commercial production without quantification of losses for mitigation. Ocean sediment disposal sterilizes the marine environment for commercial production, Without this important data collection, mitigation of ecosystem losses is impossible.

Attitudes about our marine environment have to change, becoming more protective. For fishermen to successfully contribute to coastal economies, preservation of habitat is essential. I would like to quote a response the US Army Corps of Engineers made to a comment letter sent in on the Draft EIS found in the FEIS (Final Environmental Impact Statement), Volume II: Draft EIS Comments and Responses, Integrated Feasibility Report for Channel Improvements and Environmental Impact

Statement, Columbia & Lower Willamette River Federal Navigation Channel, page 18 of the Paul King letter, "The Corps has no legal obligation under NEPA to ensure the scientific integrity of its studies," further stating, "The Corps is entitled to rely upon its own experts' studies and under no circumstances need it affirmatively defend those studies scientific integrity", and if this were not enough the Corps went on to say ,"Even if the comments had produced some evidence that the Corps' experts lack proper qualifications or relied upon flawed scientific methods that evidence would not discredit or otherwise render the Corps' studies or its EIS legally inadequate." This attitude needs fixing, now. The Congress can do the fix by disallowing any questionable of shaky scientific informational use in making decisions related to ocean resources. Government agencies like EPA, US Army Corps of Engineers, and NOAA that make decisions related to our oceans must be held to the highest standards of scientific integrity possible. If investigations are not done and done properly, uninformed decisions will be made that cause resource losses to our fisheries. ***Sound science is a must requirement.***

Essential Fish Habitat

The Columbia River Crab Fisherman's Association is supportive of the concepts contained in the 1996 EFH provisions. Proposed habitat modifications that may significantly impact essential fish habitat must be scrutinized with the value of these habitats in mind. We further recommend Our nation's goal should become NO NET LOSS OF HABITAT.

It has been our experience within the last years that existing procedures of review and consultation have generally been ineffective off the West Coast. It would seem that the EFH amendment would make the importance of preserving fish habitat one of the issues to be taken into account in the larger picture of balancing developmental needs with environmental needs. At the Mouth of the Columbia River (MCR) no official consideration or consultation occurred between NMFS and the US Army Corps of Engineers when designating a new deep water ocean dredge disposal site in the West Coast's premiere flatfish nursery area at MCR in an area designated EFH by the Pacific Fisheries Management Council. In our opinion the area should have been designated as an HAPC (Habitat Area of Particular Concern). This opinion is based on twelve years trawl experience in the area. CRCFA recommended a disposal site several miles to the west out of the flatfish nursery area. Dredging economics took precedence over natural resource degradation. CRCFA is appalled that EFH was not formally considered in the process by NMFS, especially in light of the Corps' statements related to scientific integrity of its' studies when applied to the deep water site. New ocean disposal sites should be mandatory NMFS consultation that result is mitigation for lost habitat and natural resources. The old adage of just letting the coastal communities pay the debt through lost habitat and resources has got to change, **NO NET LOSS Of HABITAT OR RESOURCES** must become the goal.

Essential Fish Habitat needs more protection from ocean dumping than the Corps and EPA are willing to provide. Sediment testing standards found in the Dredged Material Evaluation Framework Lower Columbia River Management Area produced by Corps and EPA will allow sediments to come to the ocean from thirty miles upriver without any mandatory contamination testing, citing exclusionary criteria. CRCFA would like to see the more stringent guidelines of the NOAA National Status and Trends Program applied. Sampling and Analytical Methods of the National Status and Trends Program's National Benthic Surveillance and Mussel Watch Projects should apply to any new ocean disposal sites. In fact the Columbia area should be placed in the program for reoccurring national testing. NOAA sampling and analytical methods are six times more sensitive in indicating contamination in the sediments than EPA's. Considering that the Columbia River is the number one ranked river in the entire United States in quantities of carcinogen material intentionally released into the river under permit, it is extremely questionable why NMFS would not require consultation in prime EFH and allow untested sediments complete exclusionary status. Even if the sediments were found to be 100% clean and acceptable for ocean disposal, EFH will still be irreparably altered and prime habitat changed forever by this proposed dumping.

Essential Fish Habitat should be **extended to species not under federal management.** A good example is Dungeness crab, the highest dollar commercial marine species in both Washington and Oregon. This species is under state management and must have available EFH considerations to fully manage the species throughout its range. Degradation of marine habitat without mitigation is totally unacceptable. Compensatory mitigation of marine habitat loss has to become the standard by which all new invasions into the ocean are executed.

Cumulative Effects

The Act should look closer at cumulative effects of actions taken over a period of years. Again I will use the deep water site at the Mouth of the Columbia River as example. The recent Environmental Impact Statement concludes no unacceptable significant effects on other uses of the ocean would occur. CRCFA analysis of the value of habitat to the fishery is approximately 122,000 pounds of Dungeness crab per square mile per year of area fished. The deep water site's projected use is at least fifty years and includes over fourteen square miles. Potential loss to the fishery over this time period is estimated at 87,230,000 pounds of crab alone if the entire site is devalued for the fifty year time frame. Even at half that rate, the cumulative impact is highly significant and cannot continue to be ignored. Coastal resource dependant fishing communities can ill afford to lose this kind of positive fishery production. This loss analysis does not include entrainment mortality, which could be more significant than disposal activity. Cumulative effects need more mandatory attention and must he considered as a real cost to the project in determining cost/benefit ratios of the overall project. All future WRDA bills must take cumulative environmental losses into the cost of doing business. When the fisherman pays, the nation pays.

State Jurisdiction

The 1996 and 1998 amendments to the Act added language to address a state's authority to manage Dungeness crab resources outside the boundaries of the states to the limits of the EEZ. At this time there is no compelling federal need to manage the coastal crab fishery. The Pacific Fisheries Management Council is over-burdened with current FMP obligations and is not desirous of additional responsibility or expense. In fact the Council has on two prior occasions recommended continued state management of the Dungeness crab resource. Council authority for this extremely valuable fishery is not usurped, it can develop an FMP at any time need arises.

The Washington, Oregon, California Coast is a very large diverse area. State management of the Dungeness crab resource has a long, successful, cooperative, effective management history which offers strong conservation measures and maximum sustainable yield. Dungeness crab is the only successful West Coast fishery that can harvest at maximum sustainable yield with certainty and guarantee the future of the resource Basic regulation is the 3-S [size, sex, season]. Other conservation measures include escape rings for undersized crab and biodegradable link to prevent ghost fishing of lost gear. Bi-catch mortality associated with other fisheries is not a problem. Limited entry is in place in all three states. Other effort reduction is in the early stages of development with an interim pot limit in Washington and talks of effort reduction in Oregon and California. Over-capitalization is starting to be addressed.

Fishermen in all three states still overwhelming support **continuing the Dungeness crab provision in the Magnuson-Stevens Act.** State managers should be able to use all the states laws to manage the fisheries. The one area that could use stronger and more direct language for protection and preservation of Dungeness crab is habitat protection. Without habitat protection, the crab fishery is only partially managed. **Extension of EFH provisions or extending state habitat protection without question to state managers** of the crab resource will further provide additional conservation protection to a very valuable resource.

Indian nation treaty obligations are being met because of the Act's management authority.

Management of the resource throughout it's range can he accomplished while accommodating regional variation, It is far easier and economical for stakeholders to interact with state agencies and commissions than commute to Washington D.C. On a state by state basis what seems important locally will not get lost in a much larger federal bureaucracy. Micromanagement is much easier to accomplish at the state level. Interstate agreements are achievable and in place for variation in soft-shelled season openings. Federal management of the Dungeness crab resource will not improve economic returns to the fishery or the nation.

Pacific States Marine Fisheries Commission has acted as a moderator and consolidator of coastal management in aiding formulation of limited entry in all three states. These entry requirements have recently been successful in protecting coastal fishing community structure.

There are no conflicts between the states which require federal management of the fishery. Boundaries between the states are well defined and not in dispute.

The crab fishermen in the coastal slates are supportive of reauthorization of state management of the Dungeness crab resource. Habitat protection for crab and other state managed species, needs attention.

Thank you for the opportunity to comment in a regional setting The Columbia River Crab Fisherman's Association is grateful that you chose Seattle for one of your national hearing sites. We hope you come back.

Senator SNOWE. Thank you.

Mr. SCHROETER. Todd Hiner, and then Wade Bassi.

STATEMENT OF TODD HINER, KODIAK, ALASKAN CRAB FISHERMAN AND OWNER-OPERATOR

Mr. HINER. Madam Chair, I am Todd Hiner. I have just flown in from Kodiak. We tried to make the Anchorage meeting, but with such short notice over there, we flew down to Seattle here.

I was born and raised in Alaska. I am an owner-operator of a crab fishing vessel. I am very concerned about how fast the push for co-ops is in my fishery. I have been crab fishing for 37 years. I have owned and operated a boat for the past 25 years. My dad pioneered crab fishing in Alaska. We have over 45 years of experience in this fishery.

IFQ's were pushed through our community with high opposition to it. I see the same push going for co-ops that are not proven. I speak for a lot of fishermen who never have liked politics. I am very nervous about this process. There are so many hidden agendas. The independent fishermen's voices need to be heard. We are the ones who made this fishing industry. We have been in it for the long haul. Please let us be a part of this decision process. Let our voices be heard.

Please do not take the free enterprise and competitive spirit out of fishing. It has worked for us for over 40 years. Leave it alone. I have made a good living and am raising five children who want to fish. Every fishery has its ups and downs. Please do not take drastic measures on ours.

We are Alaskans that have let boats come in from all around the country to fish our waters. Now a lot of boats in and out of our State have built big track records. How can we give away a resource like IFQ's or co-ops to people and companies? How can you justifiably give someone a resource for the rest of their life? I do not want a retirement program. We want a license and a right to fish. It is easy and it works.

Do not force the small boat operators, owners and crews out of a business with co-ops and IFQ's. That is pretty much it. Thank you.

Senator SNOWE. Thank you. Thank you for coming down.

Mr. SCHROETER. Wade Bassi, and then Bart Madison.

STATEMENT OF WADE BASSI, OWNER-OPERATOR FISHING VESSEL POLARIS

Mr. BASSI. My name is Wade Bassi. I am owner-operator of the fishing vessel *Polaris*. And we are currently involved in the sablefish/halibut fishery in Alaska.

Over the past years that we have been involved, I have noticed a lot of changes. We have been much safer. There has not been the big rush for fish. And we have been able to harvest our fish not easier but a lot more—how do you say it—we have gotten more fish than—we have not wasted the fishery like we used to waste it, where it was a big rush for fish.

I would like to have this available for other fisheries also. So I would like to have the Councils be allowed to use this as an option. I think that they should have all their options available to make it the most efficient fishery and also the best for the fishermen that are involved in it.

I would like to also see that the Councils, the individual Councils in the region, which are most familiar with the regions and the way that the fishery is operated, be allowed to make the decisions on how the different options could be put into the management system. It is imperative that the industry itself also be greatly involved in the decisionmaking, because we are the ones who are affected most by it.

I feel that the way the Council system is run now, me as a fisherman in the industry myself, I cannot take the time to go to all these meetings and get my input. And when you attend these meetings, there is a lot of—they jump around from one thing to the other and you never know when your particular issue is going to come up. I would like to see fishermen and the industry itself more involved in these decisions.

Thank you.

Senator SNOWE. Thank you.

Mr. SCHROETER. Bart Madison, and then Arnie Lee.

STATEMENT OF BART MADISON, TACOMA, WASHINGTON, RECREATIONAL FISHERMAN

Mr. MADISON. Senator Snowe, members of the Committee, my name is Bart Madison. I am a recreational fisherman from Tacoma, Washington. And I would like to speak to you today about conflict of interest rules that exist in the existing legislation, and perhaps a need for some help.

First of all, I would like to congratulate Senator Gorton, yourself and Senator Stevens for the effort that you put into implementing these conflict of interest and reclusion rules which had never been in the Act before as far as I understand. In your opening remarks in Maine, Senator Snowe, you said: "Today we will be hearing testimony about breakdowns in the public process that have led to the adoption of less than adequate management measures."

One of the testifiers there, Peter Emerson, from the Environmental Defense Fund, observed that the fishing industry interests dominate the Councils, the public interest should be adequately represented, and decisions should be made in the public interest. He recommended amending the Act to ensure broader representation of public interests and to require the Governors to consult with conservationists on their appointments.

In Texas, Wilma Anderson, of the Texas Shrimp Association, eloquently described to you how the faulty process in management had skewed the rules and the advantages away from Texas recreational and commercial fishermen.

Peter Shelley, Vice President of the Conservation Law Foundation in Maine, asked the rhetorical question: "Is the Congress satisfied with the conflict of interest rules that are in place?"

Dr. Fujita just testified about certain decisionmaking processes which appear to be flawed.

I have read the Act, and there is a phrase there which bothers me, that I would like for you to look at a little more closely. I think it is Section 302(j) paragraph 7, it says:

"A Council decision shall be considered to have a significant and predictable effect on a financial interest if there is a close causal link between the Council decision and an expected and substantially disproportionate benefit to the financial interests of the affected individual relative to the financial interests of other participants"—and here is the part that bothers me—"in the same gear type and sector of the fishery."

Now, I look at that in this manner. In the Network Council, for example, if we are all at some point or another in our careers involved in the salmon fishery, and the question comes to increasing harvest levels on chinook in southeast Alaska, why should not we all vote for that? Because we all participate in the same gear type and fishery. We might be inclined to do that in spite of sound scientific evidence that tells us that we should not do it because we are damaging the fishery.

So I would like for you to take a look at that. And I will offer you a draft of this, and then followup with a message.

Thank you.

Senator SNOWE. Okay, I appreciate that. We will include it in the record. Please give it to the Committee.

Senator SNOWE. Mr. Schroeter.

Mr. SCHROETER. Arnie Lee and then John Bruce.

STATEMENT OF ARNIE LEE, COMMERCIAL FISHERMAN AND OWNER-OPERATOR

Mr. LEE. My name is Arnie Lee. I am a commercial halibut fisherman and black cod fisherman. I own my own vessel here.

I started fishing in 1964 with my father, through the present. So I have seen an industry that was slightly overcapitalized in 1964 go to an extremely overcapitalized system, and then into an IFQ system. And one issue that sometimes gets overlooked is the families and the men that work on these boats and what happens with the systems that develop when they get highly overcapitalized. We went for two or three months at a time away from home, because that was just the way the seasons were set up and we had to do it.

And it was tough on the families and the people, and especially with families being home and knowing that we are pushing things to the limit because there is only so much time and so much fish, and we have to get it when it is available. So there is stress on the families back home, worrying about their husbands, or their wives, if they are out there fishing. And it was tough on the kids.

With the system we have now, we can slow things now if we need to. And we all have slowed things down. If we were still under open access fisheries, my crew—I have been very fortunate, they have been with me for 11 to 24 years, and my son is the most recent, in just the last couple of years, but the rest of them have been with me a long time, so they are family—and I would have to let go some of those people, because they would not be as productive. I could not operate in that competition system.

And I remember, as a 17-year-old, when I first started fishing, after my second year, I was standing on board with the crew of the fishing vessel *Tongas,* and the crew there was the average age of 68. And I thought, as a 17-year-old, how can they do that?

Well, I hope, as I grow older and my crew grows older, I can slow it down a little bit so they do not have to be displaced in their mid-forties. Because I have friends now who are in the crab fishery, and they say, "I cannot do it any more," and they are in their forties. And they say, "I have to quit."

We have to be concerned about people and families and how our management decisions affect them also.

Thank you.

Senator SNOWE. Thank you.

Mr. SCHROETER. John Bruce, and then Mike Barrow.

STATEMENT OF JOHN BRUCE

Mr. BRUCE. Madam Chairman and panel members, thank you for being here today.

You have heard a lot today about IFQ's. And most of it has been positive. I fished for 30 years in the Gulf of Alaska and the Bering Sea in the small longline fleet out of Seattle. I have a son that is up there now. And I am interested in seeing this positive program, that has been developed continue on in other fisheries.

We spent 10 years developing that program. We did not do it in Washington, D.C. We did it in the region. And we dotted most of the i's and crossed the t's. And we did not run to Washington, D.C. and ask for a fix, like has been done recently in the other groundfish fisheries.

And the reason that this IFQ program is working so well is because it was developed in the region and it was thought out clearly. And I find it amazing myself that after a few years with this program, we have not had major changes to the program. We are doing some fixing, but it is very minor in comparison to the huge change in management philosophy with IFQ's.

So I think it is important that we think about what we are doing with IFQ's. If the crab fleet would have gotten on the bandwagon and piggy-backed with the longline fleet, I doubt that we would have the problem today. A lot of those crabbers are my friends, and I have fished with them, worked for them and with them, and the position that they are in is appalling. And had they had the opportunity five years ago to do what we did, you would not face the problems that you are facing today with that opilio and that crab fleet out west.

So the IFQ program is working. You have heard lots of positive things. And I would like that opportunity extended to other fisheries in the U.S.

Thank you.

Senator SNOWE. Thank you.

Mr. SCHROETER. Mike Barrow, and then Larry Hendricks.

STATEMENT OF MIKE BARROW,
BRISTOL BAY DRIFT NET ASSOCIATION

Mr. BARROW. Senator Snowe, members, thank you for the opportunity to speak.

I am here representing the Bristol Bay Drift Net Association on the issue of Russian interception of salmon stocks. I have worked in both the government sector and in the fishing industry over the years with projects and operations in Alaska, Canada, Russia, and China. My clients and I believe that large quantities of Alaskan and other North American salmon are being intercepted at sea by catching efforts operating within and near the area of the Russian EEZ 200-mile zone.

The interception is believed to be causing great economic losses to the Yukon-Koskoquin and the Bristol Bay fisheries and the local and extended economies. The primary document of fishery efforts impacting these high sea runs are the Japanese factory gill net fleet, who pay large fees to the Russians. Additionally, the Russians are gearing up in this area both with licensed fisheries and renegade fishery fleet.

Additionally, it is our understanding currently the Russians have no serious monitoring enforcement systems in place for this fishery or a comprehensive management plan in place. The negative economic impacts on Alaska communities and the Alaskan fish industry are very serious. First, millions of returning salmon that are unavailable to the fishers and the processing industry, as well as the declines in pricing from cheap Russian fish that is hitting the market.

Due to the urgency of the situation and having talked to Representative Young on this, he is very concerned about this, and urged us to come forward to this Committee to see if we could find areas where we could begin to see some relief for this area. We understand that long-term solutions will require the Russians have in place monitoring and enforcement management systems and agreements between Russia and the North Americans for protecting the salmon runs.

Currently there are steps we feel that can be taken in the fairly immediate future to start addressing this problem. One is to put in place a gill net and trawl survey along the Russian maritime border, following the fishing effort. This can document the origin of the salmon caught migrating through the Russian EEZ.

Secondly, increase the capabilities and efforts of the U.S. Coast Guard to monitor the fishing activities and offloading at sea of the fleet in and near the Russian 200-mile EEZ, working with the Defense Department, Coast Guard, NASA, and using more sophisticated techniques, such as acoustics and satellite systems to monitor the activities. It is our understanding currently that the Russians do not have the capabilities to monitor their own fleet in this area. And if they cannot, we should.

Increase funding and focus from NMFS and the Alaska Department of Fish and Game to prioritize this area. Currently, out of the $2 million in disaster funds that are being used in Bristol Bay and the $6 million for Yukon-Koskoquin, no monies are being used for identifying and documenting this problem. And that should be corrected.

Have NMFS sample products being offloaded at the ports of destination to determine the fish of origin and the quantities, as well as put someone in NMFS to focus in on this, to coordinate this effort. This was done in the seventies and the eighties for the high

sea pirate fish and it needs to be done for the Russian interception problem.

And finally, establish a salmon genetic data base for fish, for the salmon from origins in North America and Russia. If we get the samples, we get the fish in the surveys, we need quick and cost-effective ways to genetically identify the origin of these fish. My interest is to explore with you ways to find additional solutions to this problem. You are well aware of the economic impacts that are being felt in western Alaska. And if nothing is done, it is going to get much worse.

Thank you.

Senator SNOWE. Thank you.

Ms. BUMPUS. Next we have Larry Hendricks, and then John Crowley.

STATEMENT OF LARRY O. HENDRICKS, ALASKAN CRAB FISHERMAN

Mr. HENDRICKS. Good afternoon, Senator Stevens and Senator Snowe. My name is Larry Hendricks, and I currently fish in Alaska, and I have fished there for the last 38 years. I would like to submit this letter of recommendations for changes in the Magnuson-Stevens Act Fisheries Act. Our Alaska crab fisheries have been decimated with State and Federal restraints on how to conduct our business.

My past history of fishing crab for 38 years include all species of king and snow crab. I have witnessed the decline of all major fisheries in the Kodiak, Southern Alaska Peninsula, Bering Sea, Pribiloff Islands, Saint Matthew, and the Aleutian Chain areas under the current open access system. With the open access race to harvest our resources, many of the existing laws are causing the fishermen to contribute to the decline of our own crab resources. Many safety and environmental issues could be addressed with a quota or share system for the crab fishing vessels.

As for the processing sector, possibly a limited number of processing licenses could be issued. Currently we have competition between them, and I do not see many problems other than maybe a shift in the vessels to the most efficient plant. For the entire group of crab fishermen, we need help in creating a quota or share system to protect our fishermen and slow our fisheries down.

Just as the land in the 1800's was divided up during the homesteading era, the days of our open ocean are over. And we are in need of similar help to rebuild and protect the resources in the new millennium. We have some serious problems here and we have to slow the fisheries down. And we cannot do it with the existing laws. All our laws do now is cause us to decimate our own resource. If we can have control over our own fisheries, fish them during sane current periods, when we can be safe, and then we can harvest them and let our gear work efficiently instead of competing and racing against each other, we would be a heck of a lot better off.

Thank you.

[Correspondence of Mr. Hendricks follows:]

LETTER OF RECOMMENDATIONS OF LARRY O. HENDRICKS

F/V SEA STAR
Larry O. Hendricks
GOT YAS LLC.
1110 N.W. 50th
Seattle, Washington 98107

Senator Olympia Snowe
U.S. Senate Committee
Commerce, Science, and Transportation

Dear Senator Snowe,

I would like to submit this letter of recommendations for changes in the Magnuson-Stevens Fishery Act. Our Alaskan crab fisheries have been decimated with state and federal restraints on how to conduct our fisheries.

My past history fishing crab, thirty-eight years, includes all species of king and snow crab. I have witnessed the decline of all major crab fisheries in the Kodiak, Southern Alaska Peninsula, Bering Sea, Pribilof Islands, St. Matthew, and Aleutian Chain areas under the current open access system.

With the open access race to harvest our resources, many of the existing laws are creating the fisherman to contribute to the decline of our crab resources. Many of the safety and environmental issues could be addressed with a quota or share system for the crab fishing vessels.

As for the processing sector, possibly a limited number of processing licenses could be issued. Currently we have competition between them and I do not see many problems other then maybe a shift in vessels to the most efficient plant.

For the entire group of crab fisherman, we need help in creating a quota or share system to protect our fisherman and slow down our fisheries. Just as the land in the 1800's was divided up during the homesteading era, the days of the open oceans are over, and we are in need of similar help to rebuild and protect our resources in the new millennium.

Thank you,

Larry Hendricks

Senator SNOWE. Thank you.

Ms. BUMPUS. John Crowley, then Jack Crowley.

STATEMENT OF JOHN CROWLEY, LONGLINE FISHERMAN AND VESSEL OWNER

Mr. John CROWLEY. Thank you, Madam Chair, for this great privilege of being able to come before this Committee and make these public comments to members of the most important and powerful lawmaking body in the world.

My name is John Crowley. I own a 69-foot longliner out of Seattle, and I am the third generation longline fisherman. I started at 11 years old, in the year of 1959, with my father. I was the dishwasher. I learned to wash dishes real good.

My grandfather came to Alaska in 1911, and entered the longline fishery in 1916. We have been a longline family and vessel owners since that year. This year we marked 84 years of family involvement in that fishery.

The last several years before the dawn of the IFQ system were probably the worst that I recall due to overcapitalization and the race for fish. The quality was way down, safety was way down, people were dying, and vessels were being lost. And the public was eating mostly frozen halibut.

In 1995, which signalled the big change when the IFQ came in, the dawn of the IFQ fisheries, stability finally reached our fisheries. As a family, we received an initial allocation of IFQ's. We bought some and we leased some. Safety went way up. Quality

went way up. And consumers now get halibut eight months out of the year. It is especially pleasing to go to a restaurant like Chinook's in Seattle and sit and watch four or five or six or eight people order fresh halibut on the menu there eight months out of that year.

Further, we go to visit our in-laws down in Gridley, California—most people have never heard of Gridley, California—they have one restaurant there, and they have fresh halibut on their menu. It is certainly pleasing to be able to know that we are a part of that.

Overcapitalization has changed and gone down. And that is because of the IFQ program. We as an industry have funded our own buyback by just buying out other people in the fishery who want out. There are hundreds of fishery loans now, totaling over millions of dollars, and many fishermen, individually, including myself, have borrowed over a million dollars to improve our position in the IFQ fishery. We have not burdened the public with government loans. We have done it on our own.

Through the IFQ's we have been able to accomplish this buyback and also reduce overcapitalization, on our own. Last year on our vessel, we sold 100 percent of our product in the State of Alaska, where I was born and raised and where my heart is. Generally, we sell well over 90 percent of our product there, bringing home only the last trip to Seattle.

The halibut and the black cod fishery of the North Pacific are world-class models of the best managed fisheries in the world. At a time when many fisheries around the world are being depleted, these two healthy fisheries are certainly in a wonderful position, and due mostly because of the IFQ system.

I urge you to reauthorize the Magnuson-Stevens Act and hold intact our program as it is. I also urge you to lift the prohibition of future IFQ's. They have certainly proven their wealth as one of the best management tools available to you folks.

Thank you.

Senator SNOWE. Thank you.

Next.

Ms. BUMPUS. Jack Crowley, then Darrell Knudson.

STATEMENT OF JACK CROWLEY, LONGLINE FISHERMAN AND VESSEL OWNER

Mr. Jack CROWLEY. Thank you, Madam Chairman, Senator Stevens. I certainly have been in the industry a long time. Like my son just said, our family has been in it—I thought 85 years—he said 84. I will not argue with one year. But I have 50-some years in the fishery, too.

I am not going to bother you with all of the benefits of the program, because you have heard so much about it this morning and you are very familiar with that. But I am going to urge you to do not let that Magnuson-Stevens Act go. And please lift the moratorium. It would not benefit me, but it would benefit a lot of people that need it.

I am going to take a minute to relate a little story. During the time we were putting the IFQ program together, 10 years, relatives of my family that were born and raised in Juneau and grew up there and knew what fresh halibut tasted like because our family

supplied them, had moved to San Francisco. And when I was telling them about this program we were working on—it took 10 years, you know—I sensed that they did not really approve of it. They thought this was a giving away of a resource.

Well, in the second year of our program, I got a phone call from Sylvia. And she said, you know, I really appreciate all the fresh halibut, good fresh halibut, I am able to buy here in San Francisco. She said, your program is a success.

Thank you.

Ms. BUMPUS. Darrell Knudson, and then Charlie Noggle.

STATEMENT OF DARRELL KNUDSON, LONGLINE FISHERMAN

Mr. KNUDSON. Hello. I have been a longline fisherman for over 20 years. I am a third generation, too. And my family has been fishing for a long time.

And the IFQ program, I have been running boats for 10 years, and the IFQ program has been working very well. It has made the industry, as you have heard, a lot safer. We do not have to go out in as bad weather, feeling like we have to compete and if we do not go out, we are going to miss out on some fish. We are able to compete a lot better with the fresh fish market. Before the Canadians would, just before opening, say, would go out and catch a bunch of fish, get them on the market, and we were not able to—you know, most of our fish were going for frozen.

I had a lot of things to say before I got up here, but basically it works. That is it.

Senator SNOWE. Okay. You can submit it in writing if you want to.

Mr. KNUDSON. Thank you.

Ms. BUMPUS. Charlie Noggle, and then the last witness is Mandy Merklein.

STATEMENT OF CHARLIE NOGGLE, LONGLINE FISHERMAN

Mr. NOGGLE. Hi. My name is Charlie Noggle. I have a 47-foot longliner, and I have fished black cod in Washington and Alaska for the past 21 years.

An IFQ program for the west coast black cod would be a huge improvement for a small-boat fisherman like myself. It would allow me to be more efficient, increase the price of black cod that we receive down here, and reduce the cost of catching it.

An IFQ program would enable me to move my gear to avoid halibut bycatch, which was something that always kind of bothered me off the west coast here, where it is a derby fishery, and all the grounds are covered. Fishermen are forced to set back pretty much where you start and it causes a fairly high halibut bycatch. It would allow me to operate considerably more safely if we got rid of the derby fishery.

And the last thing that Arnie had mentioned about the family time—well, last summer, for example, I figured I was working every day from mid-June until the end of August, when the derby fishery out here was over with. And to turn this into an IFQ fishery and allow us to schedule it whenever we want, schedule the fishing off the west coast, it would allow me to spend some time with the family before they return to school in the fall.

Thank you.

Senator SNOWE. Thank you.

Ms. BUMPUS. The last witness is Mandy Merklein.

STATEMENT OF MANDY MERKLEIN, BOARD MEMBER, PACIFIC MARINE CONSERVATION COUNCIL

Ms. MERKLEIN. I really appreciate you staying here through the bitter end to hear my last comments.

My name is Mandy Merklein. I am a marine fishery scientist. I have been working up in Alaska and down here in Washington for over 15 years on all kinds of boats—little longliners, big factory trawlers—and it has given me an appreciation of the trials in both management and operating a fishing business, and I appreciate a lot of the comments you have heard today.

I am here primarily in the capacity as a Board Member of the Pacific Marine Conservation Council, and I would like to give longer testimony here as part of the record. I will just make this short for you.

Primarily, the Pacific Marine Conservation Council is a 17-board member nonprofit, and we have environmentalists, fishermen and scientists on our board. We are pretty new. We are just about two years old. We have about roughly 260 members right now.

We believe that the Magnuson-Stevens Act should stay intact and it should stay strong. We really appreciate it. We think it needs time to develop, and we believe that the essential fish habitat language in the Act should also remain strong and broad. I think the comments that you heard from Rod were good about that—that the ecosystem is a chain and all the links need to be protected. Although it can be interpreted and improved upon, we want the language to stay strong.

We also are very concerned about funding, particularly the Council staff itself is understaffed. And we would like to see good funding for the Councils so that they can operate effectively. We also are of course concerned about the stock assessment surveys not having enough funding to fulfill their duties. And particularly we are very concerned about the lack of an observer program off the west coast. Alaska has had many observer programs for over 14 years in their groundfish fisheries. We need them in our marine mammal gill net programs, although that is not covered in your Act.

And I think that I have been aghast to come down here off the west coast and see the lack of at-sea data. There is no data available on bycatch and discards at sea, which makes it very difficult to manage this fishery properly. So I am very concerned about total catch, as is PMCC.

So I ask you to support a strong observer program. And there are ways you can do that in the Magnuson-Stevens Act. In particular, there are funding mechanisms that you can borrow from Alaska and apply down on the west coast. And I think they could be very well adopted down here despite some of the problems that Alaska sees.

Thanks for your time.

Senator SNOWE. Thank you.

Well, that concludes our hearing. Before we leave, I want to ask unanimous consent to keep the record open for 10 legislative days for any additional statements, comments, or other information that the Subcommittee may want to include in the hearing record.

I want to thank all of you for being here today, for presenting your thoughts and your concerns, for being an attentive audience, and for being very responsive to all of the issues as witnesses. The Subcommittee and I appreciate all the work that you did in order to make your presentations here today on what is a very significant issue to all of you, to our respective states, and to the Nation as a whole.

I also want to thank Senator Gorton for extending an invitation to this Subcommittee to host this field hearing here in Seattle. I want to thank Senator Stevens for hosting us in Anchorage yesterday, it was a very valuable hearing. I also want to thank him for all of the knowledge that he brings to bear on this issue, as he has for a long time.

So, again, thank you all very much. This concludes the hearing.

[Whereupon, at 12:22 p.m., the hearing was adjourned.]

APPENDIX

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. OLYMPIA J. SNOWE TO PENELOPE DALTON

Question. NMFS has been criticized for its lack of compliance with National Standard 8 and the Regulatory Flexibility Act which requires NMFS to consider the economic impacts of regulations on small businesses. These regulations can be quite complex and they can have a tremendous effect on the day-to-day life of fishermen—the vast majority of which are indeed small, family-run businesses.

Explain what the Oceans and Fisheries Subcommittee could do to ensure that National Standard 8 and the Regulatory Flexibility Act are properly considered?

THE WITNESS DID NOT PROVIDE A RESPONSE.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. OLYMPIA J. SNOWE TO ROD FUJITA

Question 1. It appears that the current groundfish crisis in the Pacific has been caused in large part due to a lack of basic scientific information. Only six of the 83 groundfish stocks are assessed each year, and only 26 of the 83 have *ever* had some form of stock assessment analysis done at all.

Do these "unknown" stocks make up a significant portion of the total groundfish catch? If so, which fish need to have basic scientific information about them?

Obviously, funds are limited at NMFS, is this an area—the "unknown" groundfish stocks—which needs more dedicated funding, or is there a more effective way to spend money in the groundfish fishery than by doing 57 additional stock assessments?

Answer. The groundfish crisis was caused by almost equal parts of lack of information and lack of precautionary approach. The prudent management response to the fact that only a small portion of all the species have been assessed, and even those assessed were of uncertain status (except that for many, landings showed rapid and fairly steady declines for many years before the "crisis") should have been to stop fishing them so hard, set up some research reserves, and collect some better data to inform management. Instead, the Council and NMFS chose in most cases to continue the status quo, despite the arguments of many scientists, environmentalists, and even some managers that this was going to result in a fishery collapse down the road.

It's hard to say what fraction of total groundfish landings are made up of "unassessed" stocks, due to the lack of data. Even if it's a relatively small fraction, however, it will be important to somehow limit fishing mortality on them because they could (and will) constrain fishing on more productive stocks that they are mixed with if they become depleted. For example, bocaccio contributed very little to commercial landings, but the fact that it has been depleted through sport catch, habitat damage, and bycatch in commercial fisheries has constrained a very large and valuable multispecies groundfish fishery due to mandated efforts to rebuild bocaccio.

This is not to say that we must assess every single groundfish species. This would be prohibitively expensive. The alternative, it seems to me, is to set aside representative habitats that offer safe havens for all of these species to maintain their populations as no-take marine reserves. Another, perhaps complementary approach, would be to conduct some basic life history research (short of a full assessment) on each species to determine (if possible) things like the intrinsic rate of increase, von Bertalanffy growth parameters, age at first reproduction, and fecundity at first reproduction in order to classify each species as to its relative vulnerability to overfishing. This is the approach advocated by the American Fisheries Society, the nation's premier association for fishery biologists. Management measures and data collection could then be targeted toward protecting the most vulnerable species, saving time, energy, and money.

Question 2. The Congress has been critical of NMFS for not sufficiently considering the socio-economic impacts of its fishing regulations. The Subcommittee on Oceans and Fisheries has heard that NMFS does not take into account effects that their regulations have on actual fishermen and does not use the best or even sometimes, legitimate science as the basis of these decisions. There seems to be a gap between available scientific information and fisheries management decisions.

Do you believe that considering the socio-economic impacts of potential regulations would reduce the ability of fisheries managers to make sound, science-based decisions?

Do you believe that there is a lack of basic science in fisheries management decisions making?

Answer. In an ideal world, socio-economic analyses would be truly comprehensive, taking account not only of impacts of regulations on the fishing industry, but also of impacts of inaction or overly aggressive fishing policies to biodiversity, ecosystems, future generations, and existence values held by most Americans. In this ideal world, consideration of socio-economic impacts would help managers make the right decisions.

Unfortunately, socio-economic impact analyses focus almost exclusively on economic impacts on the fishing industry and fishing communities. Very little attention is given to non-economic values, or economic impacts on other sectors of the public. Thus, these kinds of analyses offer only a very skewed perspective on the real impacts of regulation. So, considering these kinds of analyses actually hampers decision-making. Socioeconomic impacts should be considered AFTER science-based recommendations are made and vetted, in a very transparent forum, so that the very subjective assumptions that underlie most socieoeconomic analyses can be critically evaluated and so that non-market values can be expressed. The decision-making forum should also make crystal clear WHY decisionmakers are deviating from a science-based recommendation, and they should be held accountable to such decisions. Such decisions should be guided by MFCMA definition of Optimum Yield, which clearly states that OY is to be based on MSY as REDUCED to account for a variety of factors.

Question 3. In 1998, the Pacific Coast groundfish industry suffered from its lowest annual revenues in the last 18 years, about $68 million. An observer program, similar to observer programs in fisheries off of Alaska, would go a long way towards improving the supply of basic scientific information on groundfish stocks. Obviously, observers have been useful in the past to document bycatch. In a mixed-stock fishery, which has some stocks that are overfished, some that are not, and some that have an unknown status, like groundfish with its 83 stocks, identifying bycatch and other information is needed to better manage the fishery.

How would you design an effective observer program?

There are a limited number of qualified candidates who are eligible to be observers under a NMFS program. How could recruitment of observers be addressed?

Answer. To save money and to account for the fact that not all west coast groundfish vessels can safely carry observers, I would design a program that would take a representative sample of the fleet. The sample must be large enough to result in statistically valid estimates of discard and bycatch rates. Another approach would be to conduct a scientific survey of discard, bycatch, and discard survival every couple of years, again using a representative sample. Tamper-proof video recorders may also provide a cost-effective way to document bycatch and discard rates, but require lots of time to analyze. Videotape could be sampled randomly by trained samplers/recorders to save time. Results could be verified and calibrated by fully sampling some tapes and comparing the results to subsample variation.

If a scientific survey approach were applied, observers could consist of scientists and graduate students. I would think that ex-fishermen would make excellent observers if trained in sampling and data entry.

I hope these answers are helpful. Please don't hesitate to contact me if I can be of further assistance.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. OLYMPIA J. SNOWE TO PHIL ANDERSON

Question. NMFS has been criticized for its lack of compliance with National Standard 8 and the Regulatory Flexibility Act which requires NMFS to consider the economic impacts of regulations on small businesses. These regulations can be quite complex and they can have a tremendous effect on the day-to-day life of fishermen—the vast majority of which are indeed small, family-run businesses.

Do you believe that National Standard 8 has been properly considered, or do you feel that more emphasis should be placed on the socio-economic impacts of fisheries regulations?

Answer. I believe that National Standard 8 has been properly considered within the Pacific Fishery Management Council forum. The Pacific Council reviews and considers the potential economic impacts to small businesses which may result from fishery regulations. The Pacific Council is currently in the process of documenting descriptions of west coast fishing communities to assist in assessing economic impacts.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. OLYMPIA J. SNOWE TO PETER LEIPZIG

Question 1. 1995 you testified that the Pacific groundfish stocks were healthy and not overfished. In 2000 we hear of the Pacific groundfish collapse and the need for disaster assistance.

Please explain what has changed in five years. Is this environmental, overcapitalization, poor science, or an additional factor?

What action do you feel is necessary to deal with the current state of the Pacific groundfish fisheries?

Question 1a. Please explain, what has changed in five years?

Answer. This is the BIG question and there is no one single, simple answer. Several events have occurred and this has provided much opportunity for "finger pointing". One point that I would like to stress is that the record is clear, the amount of fish harvested has been very close to or below the quotas for each species since the early 1980's, when the Groundfish Plan was adopted. NMFS and the Council were not pressured to set quotas higher than the recommendations coming from the scientific community. The following are comments about some of the issues that have contributed to our current situation.

- Survey information. The west coast groundfish resource has very little "fishery independent" data. NMFS has conducted a continental shelf trawl survey once every three years since 1977. This survey is conducted to a depth of 250 fathoms, while the fishery operates out to depths of 600–700 fathoms. The southern extent of the survey is Central California, while fishing continues to the Mexican border. There are very few tows made during this survey and many species of groundfish are highly aggregated. This results in biomass estimates with a very high variance (plus or minus 100%).

  NMFS began conducting surveys on the continental slope in the late 1970's. These surveys were not synoptic. Any one year only a small portion of the coast was sampled. In 1994 (?) it was determined that the trawl gear being used was not functioning properly. A NMFS appointed independent review of these surveys concluded that the data that had been collected should not be used in stock assessments.
- Fish ages. In the mid- to late 1980's, scientists concluded that the old techniques used for aging fish were inaccurate. It was believed that many species were older than formerly believed. This new information took time to be incorporated into stock assessments. However, if the fish were older, that meant that they grew slower and were less productive than we had believed. The rate of natural mortality was less. For some species this has translated into harvest levels being lower than they had been in the past.
- Harvest policy. In the early 1990's the Pacific Council adopted a default harvest policy of F35%. This is the fishing mortality rate that would reduce a population to the level that would produce 35% of the unfished spawning output. By the late 1990's, scientists were recommending that this policy be changed for rockfish species to F40%–F45%. These new harvest policies meant in some cases that the quota needed to be reduced in order to increase the biomass. Recent analysis of stock assessment output suggests that the current level of recruitment for some species is insufficient to maintain the current population, and harvest policy targets should be increased once again, in some cases to F65%.
- Sustainable Fisheries Act. In 1996 Congress passed the SFA. The implementing rules adopted by NMFS have employed a "risk adverse" approach to establishing quotas. For species where assessments have not been conducted, these rules require the harvest level be set at levels that are in some cases 50% of the recent catches. In multi-species fisheries, the species with the lowest quota in relation to the way fish are caught becomes the "weak stock" and controls the harvest of the remaining species.

• Discards. The Pacific groundfish fishery imposes a limit on the amount of fish that can be landed for a given period of time. These are referred to as "trip limits". The purpose is to stretch the landings of fish over time, thus maintaining a higher exvessel value and greater economic yield from the fishery. On the down side, trip limits create regulatory discards. When a fisherman catches more than the limit the fish must be discarded at sea. Discards have been estimated based on dated observer work. These discards are subtracted from the quota. When quotas are reduced, the trip limits is reduced, and this causes more discards. We are caught in this cycle. [Note: an observer program will not eliminate discards, it will only estimate them better].

• Environment. There is very strong evidence that the ocean began changing in the late 1970's to a condition that was not conducive for the survival of young rockfish. Data collected from Southern California power plants dramatically shows the drop in young fish that are entrapped in the cooling water intakes. The impact of this type of environmental change has been well documented for other species of fish. For rockfish that are long lived and slow to recruit into the fishery the change was difficult to detect at first. But the impact is real.

• Over capacity. The groundfish fishery has had excess capacity for many years and a management system that is slow to react and slow to support change. The trawl fleet first proposed limited entry in 1985. In 1987 the PFMC set a control date to restrict new entrants. This date slipped to 1988, and it took until 1994 before limited entry was implemented. The west coast groundfish industry lobbied for the industry funded buy-back provisions in Section 312 of the SFA, only to have NMFS drag their collective feet in publishing implementing regulations. Now it is too late for an industry program to reduce sufficient capacity alone; there is the need for government assistance.

Question 1b. What action do you feel is necessary to deal with the current state of the Pacific groundfish fisheries?

Answer. Certainly we need to know more about the groundfish stocks. We need to know more about their actual age and rate of growth. Better, more precise estimates of population size and population trends are needed. But "more and better" science is a cop-out and will not solve the current problem in the groundfish fishery. If we begin new surveys today the information from those surveys will not be useful for stock assessments for 10 years. If funding were to be made available for such work and the funding were to cease in several years, all of the money would have been wasted. The fishery needs long-term continuous data series to be useful for stock assessment work.

This fishery is in a state of crisis. The amount of fish available to harvest is much less than once occurred. A serious fleet reduction program is the only solution. The current situation is not going to end for many years. We have rebuilding plans with time frames that range from 10 to 40 years. Without assistance to reduce the fleet, some operators will fall into bankruptcy and their boats and permits will recycle into the fishery without solving the problem of too much capacity.

Question 2. It appears that the current groundfish crisis in the Pacific has been caused in large part due to a lack of basic scientific information. Only six of the 83 groundfish stocks are assessed each year, and only 26 of the 83 have ever had some form of stock assessment analysis done at all.

Do these "unknown" stocks make-up a significant portion of the total groundfish catch? If so, which fish need to have basic scientific information available about them?

Obviously, funds are limited at NMFS, is this an area—the "unknown" groundfish stocks—which needs more dedicated funding, or is there a more effective way to spend money in the groundfish fishery than by doing 57 additional stock assessments?

Answer. Some of the species in the groundfish plan for which there are no stock assessments are rarely encountered. While others may be common, they do not comprise a significant component of the total landings. The question here is where best to spend money. Basic scientific questions related to aging of fish apply to nearly all groundfish. Age validation needs to occur for almost every species. This involves chemically tagging fish and releasing them to be caught years later. This type of work could be combined with other fishery independent surveys. These surveys if properly designed can provide abundance data simultaneously for many species.

A stock assessment requires data on catch, age, weight, sex, trend indices, growth, etc. Surveys provide some of this information. Port sampling programs, logbooks, etc. can also supply some of this information. However, personnel to prepare a stock assessment require a biologist with expertise in population dynamics. There are

only a few such biologists on the west coast. More stock assessments are limited to the number of these people.

Question 3. The Congress has been critical of NMFS for not sufficiently considering the socio-economic impacts of its fishing regulations. The Subcommittee on Oceans and Fisheries has heard that NMFS does not take into account effects that their regulations have on actual fishermen and does not use the best or even sometimes, legitimate science as the basis of these decisions. There seems to be a gap between available scientific information and fisheries management decisions.

Do you believe that considering the socio-economic impacts of potential regulations would reduce the ability of fisheries managers to make sound, science-based decisions?

Do you believe there is a lack of basic science in fisheries management decisions making?

Question 3a. Would considering the socio-economic impacts reduce the ability of managers to make sound decisions?

Answer. In the short-term, NO. In the long-term, YES. A fishery resource is only able to produce a certain amount of surplus stock. What we harvest is this surplus and this is where the value of the fishery comes from. If a regulation is needed to protect the long-term productivity of the stock then eventually that regulation will be necessary. But if that regulation which is necessary to protect the long-term productivity of the stock is causing socio-economic hardship on fishermen if imposed today, then that same hardship will likely occur in future if the regulation is not imposed.

Many fishery managers would view this situation and conclude that the hardship is coming one way or another. It might as well be now. These managers tend to think of fisheries management with concern only for the fish and little concern for the fishery, when in reality they are managing people. The solution is to find someway as a manager to lessen the hardship. This can be accomplished by reducing the capacity of the fleet or increasing the value from the resource. Fewer people fishing for the resource or the same number deriving more money for what they catch.

In the short term, if a management action is taken that provides a transition through the hardship, imposing the long-term regulation can be delayed.

Question 3b. Do you believe there is a lack of basic science in fisheries management decision making?

Answer. Fishery science is a science in its infancy. It relies heavily on other disciplines such as biology and mathematics. Fishery science has few opportunities to test a hypothesis that are necessary to develop principles and laws such as are found in physics or chemistry. Untested concepts are often taken as truths when in fact they may have begun as a "rule of thumb". And to make things worse, we have written some of them into legal terms that form the political body of fisheries management. There is very little science in fisheries management.

Question 4. In 1998, the Pacific Coast groundfish industry suffered from its lowest annual revenues in the last 18 years, about $68 million. An observer program, similar to observer programs in fisheries off of Alaska, would go a long way toward improving the supply of basic scientific information on groundfish stocks. Obviously, observers have been useful in the past to document bycatch. In a mixed-stock fishery, which has some stocks that are overfished, some that are not, and some that have an unknown status, like groundfish with its 83 stocks, identifying bycatch and other information is needed to better manage the fishery.

How would you design an effective observer program?

There are a limited number of qualified candidates who are eligible to be observers under a NMFS program. How could recruitment of observers be addressed?

Question 4a. How would you design an effective observer program?

Answer. In the introduction to these questions the term bycatch was used. I realize that there is a legal definition in the Act for bycatch, but in reality everyone seems to have his or her own also. To me a fisherman catches fish. Some of the catch he keeps. Some of the catch is thrown overboard. Of the catch that goes overboard, some was thrown back because it is not desirable (low value), and some is tossed because the law says it must be tossed.

In the groundfish trawl fishery, the major component of fish that is not retained is tossed due to the regulations. In the longline fishery it is tossed because of low value and regulations. In the recreational fishery the fish are not desirable. Every sector of the fishery has bycatch. The reason for bycatch (discards) differs from sector to sector; just as the species that are landed varies, the species that are discarded vary.

The purpose of an observer program must be identified before the program can be developed. Questions such as—Is the program for monitoring or is it for law enforcement? The program must identify what information needs to be collected, how

it will be used, and who will collect and manage the database. The cost of collecting the identified needed data versus other ways of collecting the data should be analyzed. Once these types of questions have been addressed then a sampling protocol can be developed that provides coverage of all vessels that encounter groundfish, including recreational boats and commercial vessels that take groundfish incidentally while fishing in other fisheries. Sampling that provides statistically reliable estimates from every sector should be the goal of an observer program.

Of course cost is a big issue. User funded programs that have been used elsewhere, do not appear to be realistic in the Pacific groundfish fishery. The trawl fishery has the highest gross revenue of all sectors, with a mean gross revenue around $160,000 per year. Other sectors are substantially lower. The size of boats is an additional problem. Again, the trawl sector has the larger average size boat; this is around 60 feet. These are older boats with often two bunks and no toilet facilities.

Again, an observer program will not eliminate discards; it will only estimate them better.

Question 4b. How could recruitment of observers be addressed?

Answer. This is a very tough personnel question. The type of individual that is hired should reflect the purpose of the observer program. A different sort of person could be hired if the program thrust is law enforcement as opposed to biological data collection. Either way the people hired will likely be younger and looking to the program as a "first step" in a career. If the Federal and State governments are not expanding their fisheries programs there is little career path for observers. Therefore private observer companies will likely have high turn over and high associated costs as a result.

On the west coast, when poor working conditions (small boats with little amenities) and little opportunity for advancement are coupled with the fact there are well over 2000 boats that either fish for or encounter groundfish while fishing for other species; the creation of an observer program is a major undertaking.

Given the above, it is clear that creative ways will be required to place observers in the west coast groundfish fishery. Ideas such as college credit for students that participate in such a program and training commercial fishermen to collect data would need to be explored. Alternative ways to gather the same information can not be overlooked, such as full retention or charter fishing contracts.

Question 5. Senator Kerry's questions: . . . what is a "non-quota" approach? How would it work and in what fisheries?

Answer. On the west coast there are several major well managed State fisheries that do not used quotas. If these fisheries were to be brought under the Federal system, they would die.

Examples are Dungeness crab and Pacific pink shrimp. They both use seasons, gear restrictions, and (animal) size as the primary management tools. The crab fishery is also for males only. These fisheries have variable landings with wide swings in abundance that are environmentally driven.

Other ideas for "non-quota" approaches could be based in the biological characteristics of the animals. Some fish, because of size or behavior, are not caught until they have attained a size or age by which they have multiple opportunities to spawn. Such fish could be fished extremely hard with no impact on the productivity of the stock. Pacific sanddabs and many of the "small" rockfish species are examples of this type of fish.

Another approach would be to monitor the fishery for "change". As a university professor recently commented to me—"We should think of ourselves as being in an airplane. We should not be concerned about how high we are, but rather are we going up or down?" Dramatic changes in the size of fish, sex ratio, or CPUE are all indicators that something has changed in the population. These changes may simply be part of the natural process of fishing down, indicators of strong year classes, or changing ocean conditions. On the other hand these types of changes may also indicate that a stock has been overharvested. To be able to sort out what is occurring requires that fisheries biologists once again become fisheries biologists rather than function as simply computer jockeys. Before NMFS, fishery biologists were part of the fishing community, down on the docks looking at fish and talking with fishermen. They learned a great deal from fishermen, and fishermen learn a great deal from them. Through mutual respect interpretation of information used to occur.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. OLYMPIA J. SNOWE TO DAVID SAMPSON

Question 1a. It appears that the current groundfish crisis in the Pacific has been caused in large part by a lack of basic scientific information. Only six of the 83

groundfish stocks are assessed each year, and only 26 of the 83 have ever had some form of stock assessment analysis done at all.

Do these "unknown" stocks make up a significant portion of the total groundfish catch? If so, which fish need to have basic scientific information available about them?

Answer. Tabulated below are annual commercial landings statistics (in metric tons) for the 15 different U.S. west coast groundfish stocks for which formal stock assessments were prepared and reviewed by the Pacific Fishery Management Council (PFMC) during 1997–99. The data shown were taken directly from the groundfish "Stock Assessment and Fishery Evaluation" documents published annually by the PFMC. For some species (e.g., petrale sole) the assessments did not cover the entire range for the species, whereas the landings statistics are for the entire U.S. west coast.

Stock	1996	1997	1998	Total
black rockfish	<a>	<a>	<a>	<a>
blackgill rockfish	<a>	<a>	<a>	<a>
boccacio rockfish	597	445	397	1,439
canary rockfish	1,146	1,097	1,133	3,376
chilipepper rockfish	1,711	2,054	1,273	5,038
cowcod rockfish	<a>	<a>	<a>	<a>
Pacific ocean perch	733	580	602	1,915
widow rockfish	6,077	6,455	3,827	16,359
yellowtail rockfish	5,197	2,096	2,777	10,070
thornyheads	6,529	4,288	3,530	14,347
sablefish	8,317	7,928	4,345	20,590
Dover sole	12,152	10,089	7,969	30,210
lingcod	1,557	1,537	348	3,442
Pacific hake (whiting)	76,797	84,448	87,862	249,107
petrale sole	1,828	1,945	1,459	5,232
Total	122,641	122,962	115,522	361,125
All Groundfish	148,576	142,327	132,139	423,042

<a> Reported landings of these species were included with miscellaneous rockfish and other rockfish landings.

These 15 "assessed" stocks accounted for about 85% of the commercial harvest of groundfish along the U.S. west coast. The "unassessed" stocks made up a bit less than the remaining 15% of the landings. Some would argue that these unassessed stocks have "ecological significance" but they do not have much "economic significance".

Question 1b. Obviously, funds are limited at NMFS. Is this an area—the "unknown" groundfish stocks—which needs more dedicated funding, or is there a more effective way to spend money in the groundfish fishery than by doing 57 additional stock assessments?

Answer. It is very likely that many of the fishers who have been displaced by restrictive catch quotas from harvesting their traditional target species will instead increase their harvests of these minor unassessed stocks. More information on the status of these stocks would be beneficial for setting reasonable harvest quotas, which currently are based on historical landings for many of the unassessed stocks. Even more beneficial would be a reduction in the harvesting capacity of the fishing fleet. The fundamental problem in the west coast groundfish fishery is not lack of information about fish stock status; it is lack of any effective control over fishing capacity. We have allowed (and even encouraged) the fishing industry to increase, and now there are too many fishers chasing after a limited supply of fish.

Question 2a. The Congress has been critical of NMFS for not sufficiently considering the socioeconomic impacts of its fishing regulations. The Subcommittee on Oceans and Fisheries has heard that NMFS does not take into account effects that their regulations have on actual fishermen and does not use the best or even some-

times legitimate science as the basis of these decisions. There seems to be a gap between available scientific information and fisheries management decisions.

Do you believe that considering the socio-economic impacts of potential regulations would reduce the ability of fisheries managers to make sound, science-based decisions?

Answer. No. It is important to distinguish between two kinds of fishery management decisions: decisions about how much of the fish resource to harvest, versus decisions about who should be allowed to make the harvests and how much they should be allowed to take. Most fishery regulations (catch quotas, season limits, gear restrictions) are not uniformly beneficial or harmful to all interest groups. Managers can use socio-economic information to help weigh the costs, benefits, and harvest-allocation implications of different management actions. Fishery managers should not try to use fisheries science to adjudicate between different possible uses of our fish resources. Fisheries scientists can provide advice to fishery managers about the likely consequences of particular harvest quotas or fishing seasons, but fisheries science CANNOT answer the question "What should we be doing with our fish resources?" The political process needs to define the objectives of fishery management policy. Once the policy is set and the objectives are clear, the fishery scientists can give scientific advice on appropriate methods for achieving the objectives.

Question 2b. Do you believe there is a lack of basic science in fisheries management decision making?

Answer. No. In my experience as a member for six years of the Pacific Fishery Management Council's Scientific and Statistical Committee the Council almost always heeded the recommendations of the stock assessment scientists regarding appropriate harvest levels. That is not to say, however, that fisheries science has been, or ever will be able to accurately estimate the sizes of the fish stocks or accurately predict whether or not the condition of the stocks will improve to a certain level in the future. Fisheries scientists have in general done a poor job at explaining or quantifying the uncertainty about the stock size estimates and catch projections that appear in most fish stock assessments. Also, it seems that many fishery managers would prefer the assessment scientists to provide a single best estimate for a catch quota rather than a range of values, perhaps because the managers do not know how to pick a "best" number from a range. Collectively we have not agreed on what is "best", whether to catch the fish or leave them in the water, whether to have a large fleet of small boats or a small fleet of big vessels.

Question 3a. In 1998, the Pacific Coast groundfish industry suffered from its lowest annual revenues in the last 18 years, about $68 million. An observer program, similar to observer programs in fisheries off of Alaska, would go a big way toward improving the supply of basic scientific information on groundfish stocks. Obviously, observers have been useful in the past to document bycatch. In a mixed-stock fishery, which has some stocks that are overfished, some that are not, and some that have an unknown status, like groundfish with its 83 stocks, identifying bycatch and other information is needed to better manage the fishery.

How would you design an effective observer program ?

Answer. I disagree with the fundamental premise of the question, that an observer program is needed to improve "the supply of basic scientific information on groundfish stocks." There are alternative ways to acquire much of the basic scientific information. Unfortunately, the debate has focused on having an observer program rather than on the data that is needed for stock assessment and fisheries management.

In the groundfish fisheries in Alaska much of the harvest is caught and processed at sea, so that the only method for documenting the size of the catch and its biological characteristics (species composition and length, age, and sex compositions) is to have samplers aboard the fishing vessels. Off the U.S. west coast there is significant at-sea processing only in the at-sea component of the fishery for whiting (Pacific hake). There were U.S. observers aboard the foreign vessels that harvested whiting during the 1970s and early 1980s, and there have been observers aboard the U.S. factory trawlers that have been harvesting whiting off the U.S. west coast since 1990.

Other than the catches of whiting that are processed at sea, the groundfish caught off the U.S. west coast are landed at a relatively small number of ports that are routinely monitored by agents from the states of California, Oregon, and Washington. An observer program would certainly supplement the data collected by the State fishery agencies, but it would be much more cost-effective to simply provide more fishery agents to collect the data where the fish are landed. Most of the variability associated with the biological characteristics of the harvested fish is due to trip-to-trip variation. That is, the fish caught during a trip tend to have similar characteristics, whereas there are large differences in the characteristics between

fish caught on different fishing trips. (Presumably different fishing boats harvest from different fish schools and the fish in a school tend to have similar characteristics.) An observer during a four-day fishing trip will be able to record sample data from a single trip, whereas that same person could take sample data on shore from three or four trips each day when the vessels land their catches.

A shore-side sampler, however, only has access to the landed catch and not to any fish that are discarded at sea. With regard to discards, it is important to distinguish between at-sea discards of marketable fish versus discards of unmarketable fish. The discards of marketable fish largely occur because of fishery regulations. For example, trawl vessels are legally prohibited from landing salmon and halibut and must discard those fish at sea. Also, the Pacific Council imposes trip limits that restrict how much fish any given vessel can land during a given time period. Any catches above the limits must be dumped at sea. These regulations are extremely costly, in terms of wasted fish, wasted fishing effort, and distorted harvest data. Adding an observer program to monitor these discards adds further to the costs but does nothing to eliminate the problem. Surely there must be ways to modify the regulations to fix the problem of at-sea discards of marketable fish, for example, by allowing the fishers to land their overages but not receive the full market price. The fish would not be wasted and they would be accounted for by the usual shoreside monitoring systems.

With regard to discards of unmarketable fish, we need a modest at-sea observer program to obtain information on the magnitude and biological characteristics of these discards. The program, however, would only need to monitor a very small fraction of the fishing trips to obtain reasonable data on the level and characteristics of the discards.

Question 3b. There are a limited number of qualified candidates who are eligible to be observers under a NMFS program. How could recruitment of observers be addressed?

Answer. If sufficient funds were made available, I'm certain that the existing observer companies would be able to find and train observers.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY SENATOR JOHN F. KERRY TO JIM LONE

I saw the letter you submitted to Dr. Bill Hogarth and Mr. Will Stelle regarding budget initiatives necessary to obtain adequate data in the fisheries under your jurisdiction. I understand that in your region in particular, there has been a serious problem with obtaining adequate data upon which to make sound management decisions.

Question 1a. How does the Council and/or the Scientific and Statistical Committee prioritize research needs?

Answer. The Council reviews its research and data needs every two years. This review includes consultation with the SSC, Groundfish Management Team, Groundfish Advisory Subpanel, other advisory groups and the public. The Council sets priorities for research and data needs based on the following ranked criteria.

1. Projects that address long term fundamental problems of west coast fisheries.
2. Projects that improve the quality of information, models, and analytical tools used for biological assessment and management.
3. Projects that increase the long run market competitiveness and economic profitability of the industry.
4. Projects that contribute to the understanding by decision makers of social and economic implications in meeting biological and conservation objectives.
5. Projects that provide data and/or information to meet the requirements of the Magnuson-Stevens Act, the Regulatory Flexibility Act, and other applicable laws.

The list of research and data needs is made available to NMFS and various research institutions (universities, etc.).

Question 1b. Once these needs are prioritized, is there adequate funding available to do the necessary research? Is a lack of adequate funding the reason for the poor information we have on rockfish?

Answer. There is a severe shortage of basic information about many west coast groundfish species, and this is particularly true of rockfish. There are over 50 species of rockfish listed in the groundfish fishery management plan, and we have comprehensive stock assessments on fewer than ten of them. Rockfish typically grow and mature more slowly than many other types of fish, and many species live 50–

75 years and even longer. Most rockfish species are not distributed evenly, but rather have patchy distributions that are often associated with rockpiles, pinnacles, reefs, and ridges along the ocean floor. These areas are difficult to survey because trawl nets (which are the primary sampling gear) tend to snag on rocks and other obstacles. In addition, the NMFS research surveys do not go shallow enough to sample many species. This leaves many areas neglected. Within the survey areas, the patchy distribution of rockfish requires that many more samples be taken in order to accurately assess how many fish are present. NMFS does not have the personnel, equipment and technology to survey these areas, nor the funds to develop the technology and acquire the equipment. Given the current level of survey activity, NMFS is doing a good job; but more survey activity is needed, which will require additional funds and personnel.

While stock assessment is one of the Council's highest priorities, information on economic and social conditions is also essential for informed decision making. There has not been adequate funding for development of biological, economic and social data collection and research on a number of fronts. Improved estimates of the total rockfish catch will require additional funding for observer programs and other data collection activities. This is because commercial vessels typically land a mix of species in a single load, and often record the amounts under broad categories such as "small red rockfish". The west coast data system relies on port samplers to sample representative catches to determine the ratios of various species that are caught. Fishers and fish buyers generally record the landed amounts by species group rather than individual species receipts because (1) a substantial sorting and paperwork burden would be placed on fishers and processors to identify and weigh each species of rockfish in a landing, and (2) it is often extremely difficult and time consuming to differentiate among the 60+ species of rockfish on the coast, and not all fishers have the necessary expertise to identify every species. Trawl vessels take the large majority of the catch, therefore much of the port sampling effort has been focused on trawl vessels. The number and size of trawl landings have declined with declining stocks and more stringent regulations, and it has become more difficult to get adequate sampling of the trawl catch. Additionally, as the importance and concern over species taken by non-trawl vessels have increased, the inadequacies of the sampling efforts for these non-trawl species has become more apparent. More port samplers are needed to collect species composition and collect the biological data needed for stock assessments. This information is also needed for addressing allocation issues. While port sampling is important, it does not reveal the amount of catch that may have been discarded at sea. For that an at-sea observer program is needed. An observer program could offset to a certain degree the amount of port sampling needed.

Question 1c. Could you explain the different sorts of data and research necessary to improve management (i.e. life history information, population dynamics, surveys, etc.)?

Answer. In order to set appropriate target harvest levels, the Council needs accurate estimates of current biomass of the various fish populations, the age structure and distribution, how fast they grow, how old they are when they start breeding, how long they live, and other basic information. In addition, it is important to know the total amount of fish caught and killed, including the size and age of those fish, and size of incoming year classes. Some of this information comes from scientific resource assessment surveys, and some from the commercial and recreational fisheries.

Resource Assessment Surveys. The current west coast groundfish survey strategy is primarily based on a triennial schedule that includes a bottom trawl survey of the continental shelf resources and a combined acoustic and midwater trawl survey for Pacific whiting. The bottom trawl survey design is inadequate for estimating many of the nearshore flatfish, does not extend deeper than the shelf, and has too few stations to estimate shelf rockfish with the desired level of precision. Annual plankton and larvae surveys off California have been used for coastal pelagic stocks and can be used for some groundfish stocks such as nearshore flatfish. An annual trawl survey of the continental slope groundfish resources has not had sufficient number of days to adequately cover the entire coast line. With the expanding emphasis to improve the stock assessments for the groundfish, new opportunities and sampling technologies are needed to expand the survey frequency, areas and species.

Fishery Monitoring and Data Collection. One of the most important Council needs is accurate assessment of total removals to estimate fishing mortality and accurate tally of fishery landings in-season. The benefits of fishing regulations cannot be evaluated unless there is good information on the effects of the regulation on harvest. In-season monitoring of catch rates is necessary to ensure that harvests do not

substantially deviate from target levels. Currently, the greatest concerns are accurate estimates of amounts of fish discarded in multi-species fisheries and unreported or under reported landings.

Fishery and Productivity Parameters. Assessment models of the productivity of the various groundfish stocks depend on good estimates of fishery catch by age, current estimates of biomass and recruitment, and also reliable estimates of growth in length and weight, fecundity and sexual maturity, natural mortality, and differential location/movement by size, age, and sex. The data for these come from sampling fish in commercial and recreational catches and from scientific surveys. Expansion of survey activities and increased fishery sampling would improve fishery and biological parameters and result in better stock assessments.

Stock Assessment Modeling. Development of reliable stock assessment models of the dynamics of the important fish stocks is critical to evaluating optimum yield and MSY control rules for species or species groups for managing annual fisheries. These model results are usually presented as updated stock assessment reports. Typically, models are more complex when little information is available, or when there is conflicting information.

Habitat. The Sustainable Fisheries Act established new priorities for the consideration of impacts on habitat. More information is needed to understand the impacts of different fishing gears on habitat and the importance of different habitats and/or refugia for maintaining the fishery.

In summary, the following data collection and research activities need additional support.

- Fishery independent surveys—estimate total biomass, estimate year class sizes, better understand the influence of environmental factors. All major fish assemblages and habitats need to be covered as well as various life stages.
- Port sampling—to determine the species composition of landings and collect the biological data needed for stock assessments.
- Observer program—to determine the composition of catch and better account for total mortalities; and to increase the understanding of stock aggregations by gathering tow by tow or set-by-set information rather than aggregate trip information. This information would improve stock assessments and provide managers with a better understanding of how regulations influence discards.
- Recreational fishery surveys—estimate effort, species composition, catch rates, and intended target species in order to conduct stock assessments; estimate local income impacts and net economic values; predict effects of regulatory changes. More precise information is needed for smaller geographic areas, particularly with respect to management of the rockfish fisheries, assessment of community impacts, and assessment of the potential conservation benefits and impacts of marine reserves.
- Habitat studies—determine gear impacts on habitat and identify habitat areas of particular concern in order to develop management recommendations that take better account of habitat.
- Economic data collection and an economic and social science program on the west coast—project effects of regulations on fisher behavioral response and hence fishing mortality, in addition to meeting the regulatory requirements and facilitating more socially acceptable management decisions.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY SENATOR OLYMPIA J. SNOWE TO JIM LONE

Question. NMFS has been criticized for its lack of compliance with National Standard 8 and the Regulatory Flexibility Act, which requires NMFS to consider the economic impacts of regulations on small businesses. These regulations can be quite complex and they can have a tremendous effect on the day-to-day life of fishermen—the vast majority of which are indeed small, family-run businesses.

Do you believe that National Standard 8 has been properly considered or do you feel that more emphasis should be placed on the socio-economic impacts of fisheries regulations?

Answer. I believe NMFS and the Council have tried to comply with National Standard 8 and the Regulatory Flexibility Act, and they have done a credible job with the available information. However, there is definitely a need for improvement in the information available on socio-economic impacts of fisheries regulations on businesses and communities. The Council is in the process of completing a profile of west coast fishing businesses and communities that will help predict the economic

impacts on businesses and communities. However, we are facing declining stocks and more stringent requirements to prevent overfishing and practice risk-averse management. Increased emphasis on socio-economic impacts should not come at the expense of resource conservation.

PREPARED STATEMENT OF W.F. "ZEKE" GRADER, JR., EXECUTIVE DIRECTOR, PACIFIC COAST FEDERATION OF FISHERMEN'S ASSOCIATION

Members of the Committee, thank you for this opportunity to provide written testimony on the reauthorization of the Magnuson-Stevens Fishery Conservation & Management Act, 16 U.S.C. 1801 et seq. ("Magnuson Act"). I have served as the Executive Director and counsel to the Pacific Coast Federation of Fishermen's Associations (PCFFA) since the organization's founding in 1976, shortly before the passage of HR 200, the Fishery Conservation & Management Act (FCMA). PCFFA represents working men and women in the west coast commercial fishing fleet—mainly owner/operators in the small to mid-size vessel fleet, the "family fishermen." It is the largest commercial fishermen's organization on the U.S. west coast.

PCFFA is intimately familiar with the Magnuson Act. As you know, some of the first efforts at extending U.S. fisheries jurisdiction started here on the west coast in the late 1940's and in 1969, some of PCFFA's member organizations worked with former California Congressman Don Clausen when he introduced the first 200 mile limit bill in the Congress. PCFFA member organizations also worked to convince another former California Congressman, Robert Leggett, of the need for extended fisheries jurisdiction. Leggett's support, as chair of the old House Merchant Marine & Fisheries Committee's Fisheries & Wildlife Subcommittee, was crucial to the House passage of Congressman Studds' bill, HR 200. The newly-formed PCFFA was one of numerous fishery groups throughout the nation urging President Ford to sign the bill when the FCMA arrived on his desk that spring. The FCMA was to be the "renaissance of America's fisheries."

In the years since, PCFFA has tried to work with the Pacific Fishery Management Council, and has been involved in developing legislative language in most of the reauthorizations of the FCMA (e.g., see PCFFA's 22 July 1985 testimony to the Commerce, Science & Transportation Committee). Some of our issues have included: (1) a requirement that fishery habitat language be included in the act; (2) a requirement that Council members know something about fisheries before being appointed; (3) a requirement that Council's consider fleet safety and fishing community impacts in their decision making; and (4) a requirement that fisheries be managed sustainably. Indeed, PCFFA was probably the first fishery organization in the nation to argue for the fishery Councils and the National Marine Fisheries Service (NMFS) to address fish habitat issues in fishery management plans. In the late 1970's it was clear to us that unless something was done to protect the in-river spawning and nursery habitat of salmon, no amount of regulation of the fishing fleet was going to conserve these fish.

I was one of the original members of the PFMC's Salmon Advisory Subpanel and served as a commercial troll representative on that body before stepping down in the mid-1980's and being succeeded by PCFFA's then-president, Nat Bingham. Two of PCFFA's officers—Dave Danbom and Nat Bingham—subsequently served on the Pacific Council, although it was a real struggle to get Commerce and NMFS to appoint anyone from the salmon fisheries or committed to sustainable fisheries. A number of PCFFA's other officers and board members have also served on various PFMC committees over the years. All of this is to say that our organization is as well-qualified as any, given its history and participation, to comment on regional Council operations and Magnuson Act reauthorization.

We wish to thank Senator Wyden's office for their assistance in allowing us to provide written testimony to this reauthorization hearing, although we would have preferred to have testified in person. The Committee is to be complimented, however, for its witness list and having brought many of those responsible for the current situation in the Pacific Coast fisheries together to offer their oral statements and be questioned by members. We are not content to do nothing in this reauthorization round, to simply give the Sustainable Fisheries Act time for implementation. It is clear to us that some legislative changes are needed now to the Magnuson Act to assure protection of fish stocks and working fishing men and women. It is unfortunate that there is a need to keep amending the Magnuson Act; the original FCMA was a well-crafted statute. The problem is it was handed over to those who either did not care about, or were incapable of, assuring America's oldest industry was sustainable. We are resigned to the fact that we will have to keep amending the Magnuson Act until, as former Congressman Studds' has stated, "they finally get it

right." PCFFA is a member of the Marine Fish Conservation Network (MFCN) and is working with that coalition on proposed Magnuson Act amendments for this reauthorization round.

PCFFA's testimony here will focus on five issues: (1) essential fish habitat; (2) fishing effort reduction; (3) regional Council membership; (4) the moratorium on individual transferrable quotas (ITQs); and (5) the marine protected areas (MPAs) in fisheries management. The positions taken here are PCFFA's own and do not necessarily include all of the issues that will be raised by MFCN. We believe, however, they are consistent with most of the positions that have been developed by the coalition.

Essential Fish Habitat

From the PFMC's earliest days, PCFFA's warnings on habitat were largely ignored, "blown-off," by that Council, NMFS and the state agencies until at least 1993. It was during the coho crisis of 1993 (the PFMC ordered a closure of both commercial and ocean sport fishing of coho that year) when it finally dawned on some that even complete fishery closures would not save the salmon if dam operations continued "business as usual," if there were not adequate flows instream, and if something was not done to protect forested watersheds—particularly from the impacts of egregious logging practices.

The salmon fisheries now left under the PFMC's jurisdiction are largely a result of the efforts of a coalition of commercial and sport fishermen, tribes and conservation groups working tirelessly to protect and restore salmon habitat. In fact, the salmon fishery that remains offshore the three Pacific states, exists despite the actions of the PFMC and NMFS, not because of them.

Prior to the enactment of the Sustainable Fisheries Act (SFA), the Pacific Council appointed a "Habitat Steering Group," largely at the insistence of the late Nat Bingham, and this committee has begun aggressively addressing salmon habitat issues. The PFMC has, with some reluctance, been willing to follow the advice of the experts on the salmon issue. The problem we have encountered has been NMFS failure, largely under the Endangered Species Act, to take effective action, particularly in the Pacific Northwest, to protect remaining salmon stocks. Initially the agency was reluctant to list, after it and the Pacific Council allowed salmon stocks to decline precipitously as a result of habitat destruction. Now the agency has taken more of a "list and run" attitude, still focused mainly on what little fishing effort is even allowed rather than the clear and obvious losses occurring in the rivers and watersheds from habitat destruction.

In the groundfish fishery, the Pacific Council has failed to date, more than three years after SFA passage, to put in place effective measures aimed at eliminating fishing gear impacts on groundfish habitat; i.e., prohibiting the use of "roller" trawl gear on hard and rocky bottoms. Perhaps the Pacific Council can be excused somewhat by its reluctance to put in place hard measures aimed at reducing the impact of fishing gear on essential fish habitat (EFH) given NMFS delay in implementation of EFH provisions enacted in 1996 SFA. Habitat damaging fishing practices (e.g., roller trawl gear) as well as coastal development and the resultant pollution continue to threaten the sustainability of our fish stocks *and* fishing industry. Yet, the continuing delay in finalizing EFH regulations and the approval of FMPs that do not address the EFH mandate raise serious questions about NMFS and the regional Councils' commitment to implementing the EFH requirements of the law. Indeed, it raises serious questions about their commitment to sustainable fisheries or to the future of this nation's fishing industry.

It is clear to us that stronger language will be needed on EFH in the Magnuson Act to get NMFS and the regional Councils to do what they should be doing.

Reducing Fleet Capacity

The west coast groundfish fishery is a disaster. This one, however, unlike past fishery disasters caused by El Ninos, hurricanes and other natural occurrences, was of our own making and clearly foreseeable. As early as the late 1970's while the Pacific Council was actively pursuing its "weak stock' management policy for salmon (while blithely ignoring habitat impacts) severely restricting the ocean fisheries, it was pursuing a policy of knowingly allowing the overfishing of certain species of the groundfish complex to allow the industrial trawlers maximum harvests. It failed to act in a timely manner to enact a limited entry program for groundfish. Mostly, the groundfish limited entry program merely secured a place in the fishery for a trawl fleet that was far too large for the existing resource. That program, incidentally, was enacted not only at the expense of the resource but to the detriment of the smaller hook-and-line groundfish fishermen and small trawl operators. While the Pacific Council has allowed itself to get sidetracked on recreational fishing closures

and restrictions on the small-boat (and small) live-fish fishery, remember, it is the large trawl fleet that is taking the lion's share of the groundfish resource and responsible for most of the bycatch (discards) in this fishery.

To us, one of the first steps needed to be taken to begin reversing the groundfish disaster is to reduce the trawl fleet capacity on the west coast by fifty percent or more. Whether it is done under the Magnuson Act or some other action, the trawl fleet needs to be reduced by at least half of its fishing capacity and half of the active fleet of boats. There is, too, we believe, a clear federal responsibility here. First, this disaster occurred under federal management. Second, the trawl fleet was encouraged to expand and increase in capacity under the "Americanization" of the U.S. fisheries following FCMA passage. Third, much of the trawl fleet expansion was funded by federal dollars in the form of loan guarantees.

A buy-back or retirement from the fishery program for the large trawlers cannot simply be a buy-out of the groundfish permit, it must be a complete retirement of the vessel from fishing (e.g., scrapping). Unless this excess capacity and excess fleet is taken out of the fisheries altogether, it will simply mean ex-groundfish vessels going into other fisheries and creating problems in those fisheries—a kind of "serial depletion." We need, as one representative of the trawl fleet testified, "to find a way where they can leave the fishery with dignity." This is no time for Congress to be cheap. The quicker the excess trawl capacity issue is dealt with in the groundfish fishery, the sooner that fishery will be on its road to recovery, providing jobs for small trawlers, longliners, hook-and-liners, and putting dollars back into the economy.

Regional Council Membership

In 1985 and 1986, PCFFA was actively involved with the National Wildlife Federation working on Magnuson Act amendments. One of the amendments we sought was to tighten up the qualifications for membership on the regional Councils, aimed at eliminating the "dabbling dilettantes" being nominated by the governors and appointed by Commerce that knew next to nothing about fisheries. That amendment did help the Council process by at least requiring some fishery expertise of Council members. The problem that exists today, is the language: (1) may have been drafted so tightly (although we do not believe it was) as to eliminate consideration and appointment of knowledgeable representatives of the conservation community; and (2) may not fully eliminate potential conflict of interest problems.

In 1985, there was little interest on the part of the conservation community in fisheries or the Magnuson Act. All that has changed in the past 15 years and PCFFA finds itself working closely with conservation organizations on fishery issues much the same as it worked with many of the same organizations on wetland, forest practice, and offshore oil issues two decades ago. If the governors or Commerce are reluctant to nominate or appoint conservation representatives because of current Magnuson language, then the Act should be amended, making it explicit that knowledgeable conservation representatives are eligible for membership.

PCFFA is dismayed that some regional Council members have used their position for their personal financial benefit. But before rushing to eliminate commercial fishermen from the regional Councils, and the expertise and knowledge they bring to the process, Congress needs to consider the potential conflicts of interest of *all* Council members and deal with that as a package. Clearly, representatives of organizations, who are staff, whether they be commercial fishing, sport fishing, processor, or conservation, will have a direct and financial conflict if they are forced to vote on an issue where commitments have been made to members or funding groups and the position of that individual could be in jeopardy as a result of his/her vote or votes on an issue. If the problem of having an organization's executive or staff member sit on a regional Council, and their potential conflict of interest is not addressed, the regional Councils are likely to end up being filled with association executives—at least from the fishing industry—with no practical fishing experience or expertise. They will sit on the Councils earning their association pay placating the most extreme elements within their groups. This is the worst kind of conflict, because such members will be hesitant to take any position that any of their members might not agree with out of fear of losing their jobs.

An even more insidious conflict of interest problem exists with the state fishery directors sitting on the regional Councils. The conflict of interest that helped destroy the salmon fishery was not from fishermen sitting on the Pacific Council but from state fishery directors carrying out their Governors policies of protecting the big dam operators, irrigation operators and timber corporations at the expense of the fish and fishing men and women. Congress has to come to grips with this very real conflict of interest that often exists with the state fishery directors sitting on the regional Councils. At the very least, where a state Administration policy is in con-

flict with fishery conservation, the state fishery director should be required to recuse themselves and not vote.

Finally, although this is not a Council membership conflict of interest issue, it is a clear conflict of interest. It is the continuing problem of having the supposedly "independent" regional Councils reliant on being represented by attorneys from the office of NOAA General Counsel. It is my experience that the regional Councils would be far better served and make better decisions were they advised and represented by their own legal counsel and not attorneys bought and paid for by NMFS. How can we expect the regional Councils to exercise any type of independent judgement if they are being advised by NOAA Counsel?

Individual Transferable Quotas (ITQs)

There are always some looking for a "magic bullet" that will cure all that ails a problem, despite the complexity. No doubt there are some that have testified before the Committee that if only we allow the regional Councils to go to ITQ management or establish no-take marine protected areas (MPAs) all will be solved in the fishery. We're here to tell you there is no magic solution for our fisheries and some of the bullets that have been proposed can be downright deadly in the wrong hands or with a shotgun approach.

First of all, ITQs can only work for fisheries that are under quota management, which many are not under. Therefore, they are not much good for fisheries such as many salmon fisheries that are managed by seasons and area closures, not quotas. Second, ITQs do not necessarily work as proponents claim, nor do they necessarily promote conservation. In some instances, ITQs have made fishermen into sharecroppers. Their lot has not been improved by ITQs, but worsened.

ITQs are not and should not exist, as many have, for the benefit of processors, banks or lending institutions. Unless they clearly promote conservation and unless they can help fishing men and women and the fishing communities, they should continue to be banned. Unless they are uniformly endorsed by the fishing men and women who will be subject to them (not some magic bullet idea from a conservation group now seeing blue) they should not even be considered. You should note the Icelandic courts, to the relief of many of its fishermen, have thrown out that nation's ITQ program.

Prior to any lifting of the ITQ moratorium, NMFS should be directed to prepare guidelines for the region Councils to follow in any ITQ scheme and then allow for a national debate to determine once and for all whether this is the course that should be followed for some fisheries and, if so, what should the ITQ programs look like?

Marine Protected Areas (MPAs)

The other "magic bullet" now being thrown around to solve our fishery problems are marine protected areas or MPAs. Marine protected areas or reserves are hardly a new thing and have existed in coastal ocean areas of the world, including the U.S. for years. Within those where most human activities are precluded, they may be useful for baseline scientific research. In other instances, even where certain types of fishing and other activities are allowed, these areas can help to protect special habitats or certain resident species of fish or shellfish. What is important here, to note, however, is that they are not a useful management or conservation tool for all fisheries, nor do they necessarily have to preclude take, if their purpose is not solely for research.

We would hope that in the discussion over MPAs, Congress allow the regional Councils to proceed with exploring this issue, neither limiting the debate, nor directing the Councils or NMFS to take actions without thorough scientific and fishing industry input and review. MPAs may serve a useful purpose in providing us baseline information, or protecting certain habitats or resident species, but they are not a substitute for other fishery management measures or tough EFH protections. And, if not carefully selected and implemented, MPAs could actually exacerbate some fishery problems by unnecessarily closing some fishing areas or forcing fishing into areas not capable of sustaining high effort levels.

Again, PCFFA wishes to thank the Committee for the opportunity to provide these written comments. If members or staff have any questions, please contact our San Francisco office. Thank you.

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